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Timber and Forests.

The rapid disappearance of all our forests should excite the serious attention of agriculturists generally. During a recent ride through a portion of country that we had well known twenty years since, but had not seen in this interval of time, we were struck with the havoc that had been made in the woodlands. A dense fifty-acre wood-lot, in particular, had been so reduced on every side by its three owners, that only a small portion remained; and this portion was so thin that close pasturage grew in every part. The wasting away which was so strikingly visible, appeared to be the result only of the home consumption of ordinary fuel. In the same neighborhood, an extensive land-owner informed us in looking over the surface that he had denuded of the original forest for his own fire wood, he had discovered that *one hundred acres* had been cleared for this purpose, during the forty years he had resided there.

The same results in a greater or less degree may be found almost everywhere. It has been estimated that at the present rate of consumption of the lumber dis tricts of the country, the whole region east of the Mississippi will be stripped of everything valuable for this purpose within the next thirty years.

What will *then* be done? Where shall we get materials for houses and barns—for agricultural implements and machines of all kinds—for fencing — for bridges—and for the construction of all kinds of shipping--to say nothing of the three to five thousand cords of wood consumed annually as fuel in every township in the settled portions of the country? It cannot be supposed that all our farmers, most of them many miles from railroads or navigation, shall resort to coal, without great expense and inconvenience, for after paying several dollars a ton for this combustible, and then being compelled to draw it several miles in addition, will prove no slight matter.

What is to be done—for the crisis must be met within the next half century?

The answer is most obviously, commence the growing of timber trees *immediately*,—for they will be wanted quite as soon as a sufficient size is attained. We have been induced to collect some information recently on this subject, and believe we cannot do a better service to our readers than to give briefly its substance, together with some previously known to a few timber growers.

The first is to restore the waste that is constantly taking place. To cut out the larger trees from woodlands, and leave the smaller to take their place, is attended with a serious objection. The constant shade, even of a comparatively small number of scattered trees, is sufficient so prevent the successful growth of small underbrush, or to retard its progress so much that it will not increase in size more than one fourth to one tenth as fast as when all the young trees have an even start. It is therefore best in all cases, to cut off every thing clean at once, leaving only such as may be a few feet high, if there be any such.

After haing obtained a young and dense growth of trees, the next question is, what treatment shall they receive? An opinion is prevalent that they must then be left to themselves,—that nature will take the best course, &c. Experience has fully proved this opinion to be erroneous—and that judicious thinning of young forests is nearly or quite as essential as the same process with crops of onions, turnips and carrots. The thinning should be progressive, and not too severe at once, else the young trees will be suddenly exposed to hot suns and the cold of winter. A rule for the distance nsunder in successive thinning, has been given by R. S. FAY, in the Essex County Transactions (Mass.) at one-half their height for deciduous trees, and one-third for evergreen—this is evidently too severe, unless when the trees are very young, and are soon expected to double their height; but the observance of a certain rate between hight and distance will be of use in preserving a proper degree of uniformity.

The following statement of an experiment in thinning by LEVI BARTLETT of Warner, New-Hampshire, appeared some time ago in the New-England Farmer:—

About twenty-five years ago I came into possession of several acres of "pine plain land," covered with a thick growth of white, yellow and Norway pines; the trees were then about twenty-five years from the seed. (The land was burned over in a very dry time about the year 1800) Immediately after I came into possession I thinned out the growth on about two acres, removing more than half the number of trees, they being the smaller portion. The wood thinned out much more than paying the expense of thinning and draw

ing. Soon after, I sold the land, since which nothing has been done to it. I have, with the present owner, recently examined the lot; we were of the opinion that the portion thinned some twenty-five years ago, is now, from the superior size of the trees worth 33 per cent. more per acre, than that portion left to itself Can any one doubt, that the limbs and tops of the removed trees, and the decaying stumps and roots of those cut out, with a free access of sunlight and air, has not very much increased the growth where thinned out, over those "left to struggle, from the excess of numbers, for the mastery? Many of the vanquished have died, while the victors have suffered severely from the effects of the struggle." I sold the land for ten dollars per acre; the present owner has recently refused one hundred dollars per acre for it. Had he judiciously thinned out the trees from the time he purchased it, till now, he might have (without injury to its present worth,) taken from it enough to have paid the interest on his purchase and taxes. I have thinned out the growth of hard wood trees with results similar to the above described.

L. Bartlett has at our request kindly furnished us with a number of additional particulars, which cannot fail to be interesting to our readers:—

1. "What was the size and height of the young trees, at the time they were thinned?" It is some 25 years since I thinned the growth, so that I do not recollect particularly as to either. I cut a few of the longest about that time, for *rafters* for a shed, only *hewing* one side; they were about 8 inches in diameter at the stump. Probably they were 40 or 50 feet high—i. e. the tallest of them, [being 25 years from seed.]

2. "What was the size and distance asunder, after the lapse of 25 years mentioned?" I went on to the lot, with the present owner, about two weeks since; we judged that if the trees were equi-distant over the two acres thinned out, they would stand at the distance of from 6 to 8 feet. These are mostly Norway pines, straight and beautiful as cane poles, from 80 to over 100 feet high, and from 10 to 18 or 20 inches diameter at the stump, [now about 50 years from seed.] We thought the portion thinned out was worth 33 per cent. more (for timber) than the unthinned part. The present owner has refused $100 per acre for the wood and timber. I presume it is worth (the large trees) much more for timber, than for wood.

3. Judging from your account of your "timber land," I should let the trees, from "8 inches to a foot," remain, and encourage the growth of seedling trees and sprouts from the roots and stumps, and hereafter thin-out as would seem necessary. As far as you may require for fuel and timber, to supply your annual wants, perhaps it might be the better way to cut "all down," and suffer a new growth to start on an equal footing.

4. What is the most profitable period to cut off a growth of timber for fuel, and how many cords annually may be expected from 10 acres, &c.? By referring to different authorities, I find a great difference of opinion. In France, 18 years is the period the *law* allows the owners to cut over their woodlots (There fuel is sold by the pound and ounce.) The late Mr. Colman cites in one of his Reports, the opinions of many farmers in Massachusetts, who give the time from 20 to 30 years to cut off the entire growth for fuel and charcoal. However, circumstances, in different locations, must prevent any fixed rule in this matter.

Mr. C., in his 4th Report of Mass. Agriculture, gives statements of several farmers in reference to the growth of wood. "F. Loring cuts once in 15 or 20 years—(oak wood)—gets 30 cords per acre." Another states "that a thin or exhausted soil will give 25 cords in 25 years; and that good land in 30 years will give 50 cords to an acre." "E. Parker of Reading, sold 40 acres of woodland, on which the wood was of only 20 years' growth. The whole lot averaged more than 40 cords to the acre,"

5. "What kind of trees would be most profitable and rapidly growing?" Soils are so different here in consequence of past geological disturbances, and the action of past diluvial agencies, that a 20 acre lot frequently consists of soils adapted peculiarly to the congenial growth of almost as many kinds or species of trees. One side of a small stream is occupied with a dense growth of hemlock—the opposite, with maples, beeches and ash. Another location near by, will be occupied by a growth of white or Norway or yellow pine, and close by, oaks will predominate. Other soils are avorably adapted to a great variety of trees, which seem to all flourish equally well. I cut the entire growth from an acre of low, moist, wet land, twelve years ago. Cattle and the fire have been kept out. A great variety of trees sprang up from stumps, roots and seeds—most of them from 25 to 35 feet in height. I have lately examined them, and am unable to tell, of several varieties, which take the lead. If left to themselves, eventually some species will probably take the lead of others. This autumn I intend to give the lot a *thinning*.

Four years ago last December, I cut from an acre or two, the maples, beech, birch, &c. from my wood lot—the growth probably about 70 years of age. They grow very thick and tall—50 and 60, and some more feet from the ground to the first limbs. The *white ash trees*, were left for timber, being from 20 down to ten inches diameter near the ground. They now stand twice, or more, as thick as Mr. Fay's rule; but *new* limbs are starting out from within 10 or 15 feet of the ground, up to the original limbs, and they will soon be useless for carriage timber, rakes, snaths, &c. Some hundreds of dollars worth I have sold for these purposes in past years.

Some 6 years ago, a railroad was built from Concord, N. H., through this town. It opened a market for wood and timber of every description, and within the last 4 years upwards of $100,000 worth of wood and timber land has been bought up on speculation by a few individuals in this *town*. French Canadians, in large numbers, are employed to chop cord-wood the year round. They camp in the woods, and the havoc they are making with our forests, it makes one sad to think of. This "de'il take the hindmost" policy, as our friend Fred. Holbrook, terms it, will be visited with a vengeance upon those that shall come after us,

even to the third and fourth generation. The future high price of fuel, timber, lumber, &c., will have a most deleterious effect upon the future well being of our common country. If these denuded wood lots, could be left to produce another growth, it would in some measure mitigate the evil, but the proceeds of a *burnt-land* crop of rye, can be transformed into dollars quicker than a growth of trees can be reared."

In a subsequent letter from L. BARTLETT, the following valuable additional information is furnished:

"I forgot to say in mine of 18th, that, upon that portion of the lot not thinned out years ago, there is now large numbers of dead trees, and great numbers of stinted trees, not larger than a man's wrist. These are of the same age as the very largest on the lot. All this while they have been in a starvation state—struggling for a bare existence; had they been cut out 25 years ago, their decaying stumps, roots and limbs would have afforded *food* for those left standing, and the growth of trees on the lot would have been far more valuable than it is now.

"My observation has taught me that care should be taken in thinning out a wood lot, to be *sure* of leaving the trees thick enough to completely shade the ground, and thereby prevent the grass and shrubs from springing up. Another important requisite, is, to suffer the limbs on the outside tier of trees to grow from the *ground upwards*. This breaks the force of the winds, prevents the fallen leaves from blowing away, causes a more equable temperature, and a more humid atmosphere, than if the winds had a full and clear sweep, as would be the case, if the trees upon the borders of the lot were trimmed off to the height of ten, or more feet."

According to *Allen's Farm Book*, the Salisbury Iron-Company has several thousand acres of land, which have been reserved exclusively for supplying their own charcoal. After sixty years experience they have ascertained the most profitable period for cutting to be once in about sixteen years. It has been found that this yielded a full equivalent to an annual interest on $16 to $20 an acre, which for a rough and poor soil, remote from a wood or timber market, pays as much as the net profits on cultivated land in the same neighborhood.

According to one of the statements of H. Colman, already quoted, 20 years growth gave 40 cords per acre. We are not informed that this was managed in the best and most profitable manner, nor of the fertility of the soil; yet at this rate, a ten acre lot would furnish an annual supply to a family of twenty cords per annum. According to the statement furnished us by LEVI BARTLETT, there were pine trees of 50 years growth, 80 to 100 feet high, 10 to 20 inches in diameter, and standing 6 to 8 feet apart,—the trees having been thinned out and having received the best treatment. If there is no mistake in this statement, there would be about *three hundred cords per acre*, for every two trees on an average, would make a cord of wood, supposing them to average 13 inches 64 feet high, and 8 feet apart. This estimate may be from too high data, but if only half that amount, it would show much in favor of proper management.

By counting the annual rings, it has been found that all the larger forest trees of western New-York are much over an hundred years old; but if we estimate their average period of growth, at one hundred years, and an acre as affording sixty cords of wood, it would require 33 acres to keep up a perpetual supply for a family consuming 20 cords per annum, or more than three times the extent of land in the case cited by H. Colman, where the growth was cut at twenty years.

This subject is one of the deepest interest to every landowner, and especially to every patriot, and those who do not wish to overreach posterity, and deprive the next generation of the materials for fuel and timber, should make ample provision for a full supply in future, by setting apart a portion of their grounds for well managed forests.

Anbury or Finger and Toes in Cabbage.

MESSRS. EDITORS.—I herewith enclose part of a cabbage root for your examination, and would ask you or any of the correspondents of the COUNTRY GENTLEMAN for the cause and cure for such growth. In this vicinity we are very much troubled with the disease, if it is a disease,—so much so, that we shall have to give up the cultivation of cabbage entirely, unless a preventive can be found. I have not been troubled with it until within 3 or four years past. I have this year about 1000 plants cabbage, and I think that I shall lose full one half of them. The sample sent is taken from a root where all the small roots are enlarged. Some of them will be one large bulb without any out shoots. Last year my driest land was the least affected by it. This year it is the reverse. If some preventive cannot be applied, cabbage in a few years, cannot be grown about here at all. JULIUS CHAPMAN. *Simsbury, Hartford Co., Ct., Aug.* 9, 1855.

The disease referred to is evidently that known as Anbury, or Finger and Toes. So far as can be ascertained to the contrary, cabbage have always been liable to it. It also affects the turnip plant; so much so, indeed, that it has been estimated in Scotland that the loss to the turnip crop is 10, 20, 30, and in some instances even as high as 40 per cent. It has recently been the subject of a very extensive scientific and practical investigation by Prof. ANDERSON, Chemist to the Highland and Agricultural Society of Scotland. Several soils on which diseased and healthy plants had been produced, were analyzed, *but no difference was found in their chemical composition.* A number of diseased and healthy plants were also subjected to minute and careful analysis, but no very important facts were brought to light. All the diseased bulbs contained much more dry or solid matter than the healthy ones; in some cases, *twice as much.* The amount of ash or mineral matter was also much greater in the diseased than in the healthy turnip, not only in the fresh, but also in the dry matter. There was also more nitrogen in the dry matter of the diseased than in the healthy bulbs. The quantity of *common salt* was, with one exception, much larger in the healthy than the diseased plant; in one instance the ash of the

former contained 14 per cent, that of the latter only 5 per cent.; in another instance the ash of the healthy plant contained 22 and that of the diseased only 14 per cent of salt. It is quite probable, however, that these differences of composition are the *effects* of disease and not the cause of it.

Although, in the language of Prof. Anderson, "the chemical composition of the soil has no effect on the development of the disease," yet its mechanical state or condition "appears to influence in a remarkable degree the amount of disease." It would appear that light, sandy soils are those in which this disease makes its greatest ravages. Mr. Cooper of Stenton, states that the disease was uniform all over one of his fields, *except where there was a mixture of clay*, and in these spots the crop was partially sound. Marshall, in his *Rural Economy of Norfolk*, although he appears to have had little confidence in the statement himself, mentions that many farmers thought "marl" a "certain prevention" of this disease.

It would appear that while loose and open soils are most liable to this disease, much treading of the soil, which compresses it, and might be expected to diminish its ravages, has an exactly opposite effect. Many proofs of this are given; we will instance one: "A very remarkable instance of the same sort," says Prof. Anderson, "was pointed out to me on the home farm at Dargavel, where a road, which had been newly repaired, ran along the side of a field, and the passers by, to avoid its roughness, formed a path by its side. When the field was sown to turnips, every bulb on the part so trodden proved diseased, while the rest of the crop was sound." Similar phenomena are mentioned, and it is a matter of general observation that headlands are always most affected.

In general, barn-yard manure is stated to produce less disease when well rotted than when applied in the raw state.

Mr. Sanderson of Meigle, applied 6 cwt. of common salt to a field in which the disease had been very bad during the two previous rotations, leaving a small part of the field unsalted for comparison. On this portion, the turnips were all diseased, while on the salted part very few were affected.

In regard to the effect of *lime*, the evidence is very contradictory. "It may on the whole, however," Prof. Anderson writes, "be concluded that the use of lime in considerable quantity has a decided effect." Some speak of it as a "complete preventive" of the disease; that it is not invariably so, however, there is abundant evidence.

We are as much in the dark in regard to the cause of the disease as ever. It has usually been attributed to the agency of insects. Curtis, author of the "British Entomology," however, says: "Now that these subjects are becoming better understood, from the investigations of men of science, it appears that insects are the consequence and not the cause of anbury." He thinks it is owing to bad cultivation, and that it is becoming less every year. "It does not," he says, "occur on well drained soils, when the culture of the land, as well as that of the crop, are properly understood and practiced."

From a review of all the evidence, however, although we have great respect for Mr. Curtis' opinion, we are inclined to believe that the disease is *caused* by an insect. Cabbage plants are frequently infected in the seed bed, and this incipient infection appears in the form of a gall or wart upon the stem, immediately in the vicinity of the root; if this wart is opened it will be found to contain a small white maggot. It is said that if the gall and its tenant are removed and the plant is placed in the soil where it is to remain, unless it is again attacked, the wound usually heals and the growth is little retarded. On the other hand—if the gall is left undisturbed, the maggot continues to feed upon the young woody part of the stem, until the period arrives for its passing into the other insect forms previously to which it gnaws its way out through the exterior bark. The disease is now almost beyond the power of remedies; the gall increases in size, encircles the whole stem, and the alburnum being so extensively destroyed retards the ascent of sap and the warts or excrescences of the roots increase rapidly. The fibrous roots, besides being thickened, are distorted and monstrous from swellings which appear throughout their length, and which apparently "arise from an effort of nature to form receptacles for the sap," deprived as it is of its natural spissation in the leaves.

The general experience of farmers and gardeners testifies that this disease usually attacks cabbage and turnips when they are grown for successive years on the same soil, and this is precisely what would be expected if the disease is caused by an insect; for "the parent insect always deposits her eggs in those situations where her progeny will find their appopriate food," and in the fragments of roots of preceding crops, some of those "round, reddish-colored, hairy worms," as Mr. Carnegie describes them, are to be expected. Nevertheless we must admit there are exceptions to this rule. One of the worst cases of disease mentioned in Prof. Anderson's investigations, was on a field where turnips had never been grown before; and in the Rothamsted experiments, where turnips have been grown year after year on the same land for a dozen years, we do not recollect to have seen a single case of finger and toes. The soil is a rather heavy clay soil; the very reverse of what is known as a good "turnip soil," and which is most liable to the disease. These cases only prove, however, that rotation is not a certain preventive, and that successive crops on the same soil is not invariably followed by disease; the conclusion that it is generally advantageous to sow cabbage and turnips on fresh soil is no doubt correct.

The plan we should advise our correspondent to adopt to guard against this disease as much as possible would be as follows: Sow the cabbage seed early, on fresh soil. When the plants are two or three inches high, transplant them to another bed, recently prepared, examining the stalks of the plants, and if any are

found exhibiting indications of having been stung on the stem, throw them away. If they could be again transplanted before the final setting out, it would be so much the better. By frequent transplanting, strong stocky plants are obtained, and you have a good opportunity to reject all that are diseased. In nine cases out of ten, we believe the mischief is done in the seed bed, and it is, therefore, very important to attend carefully to its preparation and to the management of the young plants. If the land where the cabbage seed is to be sown in the spring, was dressed in the fall with quick lime, say a bushel to the square rod, and well incorporated with the soil ten or twelve inches deep, we believe it would prove advantageous. Half a peck of salt to the square rod applied in the fall, with or without the lime, would also be likely to do good. Throwing the soil into ridges in the fall so as to expose it to the ameliorating and insect-destroying influences of frost might also be adopted.

We shall be glad to hear the experience of our readers with this disease. It is said to be unusually prevalent and destructive in many parts of the country this season.

Young or Old Cows for the Dairy.

MESSRS. EDITORS—Which do you consider the most profitable for making butter and cheese, young, old or middle aged cows? Which is the most profitable breed? How many cows can I keep on a farm of two hundred acres, mostly in grass? Is it better to breed your own cows or to buy them? I am a new beginner, and shall be glad if you or some of your correspondents, will condescend to enlighten my ignorance on these and other matters connected with Dairy Husbandry. D. W. *Lewis Co, N. Y.*

We hope some of our Lewis county subscribers—than whom there are no better dairymen in the world—will give our young correspondent the information he desires.

It is we believe usually considered that the younger the cow the richer the milk, but it is less in quantity. Supposing the cow to come in at three years of age, and to have a calf each year in April or May, she would be in her prime—as regards quantity and quality of milk—the second and third years after. As a general rule, it is not advisable to keep her in milk past her eighth or ninth year. After this age her milk deteriorates in quality; she is worth less for the grazier or butcher, and consumes more food, especially in winter. Of course there are favorite cows that will always be kept longer than this, but as a general rule it is not profitable to keep cows over nine years old.

The number of cows that can be kept on a given number of acres, depends on the fertility of the soil. In the vale of Gloucester, with the weeping skies and mild climate of merrie England, 25 cows, at least, are ordinarily kept to the hundred acres, besides the usual number of young stock reared to maintain the full complement of cows giving milk. Your neighbors, knowing the quality of your land, will be able to advise you on this point. It is better to under than over stock, although in the latter case the grass is coarse and ill-flavored, enough so frequently to impair the quality of the milk.

The question as to the most profitable breed of cows for the dairy, is one which has not received the attention it deserves, either from importers or professional breeders. No effort has been made that we are aware of, to procure or produce a breed peculiarly adapted to the dairy districts of the country. Our correspondent cannot, therefore, under present circumstances, do better than to make a judicious selection from what is called the native breed, combined more or less with crosses of Durham, Ayrshire, Devon and Hereford blood, and upon these our dairymen must mainly rely, until some public spirited breeder, realizing its importance, shall raise up a breed more especially designed for this purpose.

Dwarf Pears.

We have repeated and almost constant inquiries in relation to the value of the pear on quince stocks. "Are dwarf pears going to answer? Are they not a humbug? Are they as good as standards? Would you rather have a tree on pear or quince root?" These are some of the questions that are continually asked; and the conflicting answers that are given do not help to clear up the subject.

Yet it is a very simple one, and very easily understood when cleared of the fog which partial observers and interested persons have thrown around it. To say which is best under all circumstances, would be like attempting to answer the question, "Do you think the watermelon as good as the strawberry? Shall we not confine ourselves hereafter to the best of these two, and discard the other as a humbug?"

Dwarf and standard pears are each excellent in their places. The standard pear, as a general rule, grows to be a much larger tree, requires more time, needs more room, ultimately bears much more per tree, will endure more neglect, and in most cases live to a greater age. The dwarf will come sooner into bearing, will occupy less space, and will not bear neglect, but requires good cultivation. We are not sure but the last quality is a positive recommendation; for planters certainly need the stimulus of necessity to induce them to take better care of their trees. A standard will indeed grow and bear under ordinary circumstances; but give it the best chance, and the fruit will be so much improved, as sometimes to be scarcely recognized. The dwarf is emphatically the tree for THE GARDEN, where two hundred may be planted on a quarter acre, instead of but twenty-five standards, and where no difficulty exists in giving them the best soil and treatment. Those who are about occupying new places, may secure for themselves a supply of fruit in two or three years by planting three year dwarfs; and pomologists may get the fruit of new kinds the first or second year.

One leading reason why some have pronounced dwarfs a failure, is the attempt to raise *too many kinds* on the quince. There are a few sorts that are entirely at home on this stock, and are always seen in a flour-

ishing state, under anything like favorable influences, among which sorts may be mentioned Louise Bonne of Jersey, Duchess of Angouleme, Glout Morceau, and Vicar of Winkfield, trees of which, twenty or thirty years old, are now productive and vigorous, and will probably live to a hundred. Some of these, and especially the Jersey and Winkfield, seem to grow well on almost any kind of quince. But all do best on the French stock, and this only should be used. The Angouleme, appears to be the hardiest dwarf under neglect. We have just examined an orchard of these, about nine years planted, which until the present year, had been almost totally neglected for five or six seasons, and enveloped in weeds and grass, and growing on a hard stony soil. The present season they have been cultivated but not manured, and they all show a thrifty appearance, and are bending under their loads of magnificent fruit. The trees are about two and a half to three inches in diameter, and stand erect, although allowed to run up as standards, with no pruning. They bore very little while neglected. As a proof of their superior hardiness, all or nearly all of those originally planted are flourishing, while other dwarfs, interspersed, have nearly all died out from neglect.

There are several sorts of the pear, that usually do well and live long on the quince, if enriched and cultivated annually, but not otherwise.

Partial experiments often lead to erroneous opinions. One acquaintance has denounced dwarfs, because, having an admirable soil (a strong clay) for standards and a very poor one for dwarfs, he has been eminently successful with the former, and failed with many of the latter. Some others have soils on which dwarfs only will succeed well, and they consider them as far preferable to standards. Seasons, also, sometimes have an important influence. Many years ago, a hard winter destroyed many young standards, while the dwarfs escaped. At a later period, another winter spoiled a portion of the dwarfs while the standards were uninjured. All these and many other considerations are to be observed in drawing general conclusions.

Passages from a Farmer's Note-Book.

—— It is one of the rules of our *Mutual Improvement Club* that each member shall make a brief statement, at each monthly meeting, of some addition which he has made to his stock of useful knowledge since the previous meeting. If his own observations or reflections or experiments should not have furnished to any member material for the required communication to the Club, then he might present, as his monthly contribution, whatever might appear to him among the most valuable of the acquisitions which he had made to his previous stock of knowledge, from the reports or statements of others, whether made in conversation or communicated through some agricultural paper. By this requirement of our Club the minds of all the members are kept alive and active, and on the alert, to use a military phrase, to discover something worth communicating, which may have somewhat of novelty as well as utility to make it interesting. A similar practice in other Agricultural Clubs, Societies, or Circles, might do much to make each member wide awake, and to form habits of observation, reasoning, estimating evidence, and testing theories or proposed general principles, which are of the utmost importance to successful and satisfactory husbandry. If every farmer throughout the country were stimulated by such a requirement, or in any other way, to keep his mind ever active and on the watch, that he might have, once a month at least, something well ascertained and practically useful, to communicate to his agricultural brethren, at a club-meeting or through the press, then, certainly, agriculture in all its departments would advance much more rapidly than it has ever yet done, and much of the reproach which at present attaches itself to farmers, on account of a supposed general dulness and sluggishness of mind, would soon be wiped entirely away.

—— All that is necessary to make advances in agriculture is simply to do one or more of these three things;—1. Observe accurately; 2. Reason, theorize, or draw inferences from observations made by yourself or others, correctly and logically; and 3. Put your inferences or theories to the test of well-planned experiments. Almost every farmer can do one or all of these; and the doing of one or more of these, and communicating the results to others, is all that is necessary to elevate a man to the dignity of that class who are entitled to the most honorable of all names—the *World's Benefactors*. Yes, each man who cultivates a habit of observing the phenomena of the vegetable and animal kingdom so far as they come under his observation on a farm;—who cultivates a habit of drawing general truths from particular facts by correct processes of reasoning, theorizing, or drawing inferences; and who puts all his inferences or theories to the test of some experiment which will detect errors or defects if any such exist in the theories tested;—the man who does all these, whose mind is ever active in some such employment, and who freely communicates to the world the results of his observations, reasonings, and experimentings, is justly entitled to be ranked among the advancers of useful knowledge and the benefactors of the world, as they who so do will leave the world, when they pass on to other spheres, a good deal better than they found it. The foregoing is the substance of what was said, at our Club, to some who thought they could not contribute anything to the common stock of useful knowledge.

—— A case was reported at our Club of a field having been devoted for 8 years to raising wheat and clover alternately without any diminution of fertility. We stated it as our impression that there might be found in the agricultural papers a large number of cases in which clover had been made, not merely to keep up the original fertility of lands, but even to increase that fertility. As there seems some considerable incredulity on this point, and as the general practice in the neighborhood does not conform to this fact of the fertilizing powers of clover alone, we propose to

hunt up, and present to the Club a synopsis of as many such cases as we can find. Perhaps we may lay that synopsis before the public as there are doubtless some even among the readers of agricultural journals who do not practice as if they were persuaded of the value of clover.

But what was fully more surprising in regard to this matter, was the general ignorance of the *mode* in which clover proves useful to the soil. Few seemed to be aware that the clover plant draws much of its material from the subsoil, and more still from the atmosphere, and when clover is plowed under it deposits in the surface soil both the inorganic and the organic constituents derived from the above sources, and in this way enriches the soil. Few seemed to be aware that a large supply of carbonaceous matter was obtained both from the roots and the plants plowed under, equal probably to what would have been obtained by burning both in a close vessel or charcoal-pit, by which the soil is rendered darker in color, and more capable of retaining fresh quantities of ammonia from the atmosphere. Some could not believe that clover did as much good as was claimed for it, for the very logical reason, that they could not see *how* it could do it. Perhaps there are others who cannot see *how*, to whom these hints may prove of some use. ARATOR

Mexican and Chilian Guano in England.

We have received a long and interesting letter from one of our English subscribers, dated Liverpool, July 27th, 1855, for which he will please accept our thanks. We give the following extracts in relation to the Chilian Guano Fraud, which, MAPE's assertion to the contrary notwithstanding, would seem to indicate that Messrs. SHELTON & MAPES have been endeavoring with true cosmopolitan philanthropy to extend their pious labors to our worthy cousins across the water. Whether they will like being *deceived for their good*, any better than the ungrateful farmers of this country remains to be seen.

I have read your articles on the "Chilian Guano Fraud" with much interest. Your remarks in relation to the frequency of guano adulteration in this country are not very flattering, but I am sorry to be obliged to confess, mainly correct. Doubtless, as you observe, your numerous and largely circulated agricultural papers tend to keep these villains in check, though I gather from the last *Country Gentleman* that the perpetrator of this fraud is himself an editor. * * You intimated that some of this manufactured stuff had been sent over here; I believe you were right, and that I have discovered the article. T. R. ARNOTT, of this city, having advertized Mexican and "Bird Island" guano, I was induced to give him a call. He presented me with the following analyses;

Mexican Guano, ex. "Mariner."

Organic matter, containing ammonia,	6.50
Phosphate of lime and magnesia,	37.25
Carbonate of lime,	40.00
Chloride of sodium and sulphate of soda,	15.00
Moisture,	1.25
Sand,	0.10
	100.00

Signed Newton Samuelson, F. C. S., Liverpool, 5th July, 1855.

Bird Island Guano, ex. "Urgent."

Azotized organic matter, with 6 to 6½ per cent. fixed salts of ammonia,	22.00
Phosphate of lime,	45.60
Carb nate of lime,	10.40
Fixed alkaline phosphates,	1.00
Fixed alkaline sulphates and muriates,	3.50
Water,	14.00
Sand,	3.50
	100.00

Signed George C. Huson, Liverpool, June 8, 1855.

Mr. ARNOTT told me that the former came "*direct from Mexico*," and that the absence of ammonia was owing to the rains in that part of the country. I then went to the "Mariner" and found that she *came direct from Boston*. She had a load of about 500 tons of guano, in bulk, which the mate said they received at Boston, *and not from another ship*. He could not recollect the name of the shipper. The price asked for it here is £3 7s 6d per ton, in quantity.

The "Bird Island guano" was offered me, a month ago, at £6 10s. per ton; to day, by the clerk (not knowing me) at £5. I believe it to be nothing more than the Mexican doctored in some way to give it a smell of ammonia. It smells quite strong at first, but when exposed for a day or two, it loses its humidity and ammonia, and looks exactly like the Mexican. Is not this the celebrated "Chilian" which you have rendered unsalable in the states, and which has consequently been shipped here to take in green Englishmen? * * Notice the wording of the analyses—"organic matter containing ammonia"—Query—How much? "Azotized organic matter, with 6 to 6½ per cent fixed salts of ammonia, 22." I suppose this means 6 to 6½ per cent of the 22 parts, but it is evidently so put as to lead to the belief that there is 6 to 6½ per cent of ammonia in the bulk. I wonder "chemical gentlemen" will do such dirty work. If 6 to 6½ per cent of ammonia in the organic matter is meant, it gives 1.3 per cent of ammonia in the whole, which agrees well with the amount you found, which if I recollect right was 1.06 per cent.

I should think you might ascertain who shipped 500 tons of rubbish in the "Mariner" from Boston to Liverpool about two months ago. The Agent here has not sold a single ounce. I send you a sample of it by the "Baltic." I do not wish my name mentioned in connection with this affair, though I shall be pleased to hear from you as soon as possible, if it turns out on analysis to be the "Chilian guano," manufactured in the states.

Ice Houses.

If J. F. D. L. of Greensborough, Md., will refer to a late volume of the Cultivator, he will find the information he is in need of. Yet if his soil is not proper within any convenient distance from his house, he can build an ice-house like that now used by the contributor of that information, but not constructed by him. It is square—sunk into a pit with a drain from the bottom. The sides are double planked, and filled around between the planks and under the bottom with rail road cinders. (Powdered charcoal is more easily obtained, in most places, and quite as good, if not better.) The frame rises above ground six feet. The roof is pitched at an angle of 45° to each side. The gable end is to the front. The door is in front, 2 feet 8 inches from the ground. And there is a small square chimney ventilator opening from the roof. The ice keeps well in it—but it is unnecessarily expensive. However, on rock with clay earth, it may be the only kind that will answer a good purpose. H. *Saratoga Springs*

The Horticulturist.

This eminently useful periodical, since its removal to Philadelphia, and under the auspices of its new editor J. J Smith, appears to have lost none of its value and ability. We find a great fund of information on horticultural subjects in its last number, a few gleanings from which will be interesting to our readers, and we trust advantageous to the publisher.

HEDGES—THE LEADER.

The editor furnishes some excellent and useful suggestions on this subject, in connexion with observations on the hedges on the grounds of Wm. Reid of Elizabethtown, N. J., one of the best cultivators the country affords, of whatever he undertakes. The Osage Orange, although highly commended, is regarded as defective on a few points,—namely, its want of dense growth, requiring great attention; and its exhaustion of the soil for some distance on each side. Of the latter we have not had opportunity for judging satisfactorily; but we are not sure but that the former may prove an advantage, for most of our cultivators need some practical necessity to teach them to cut back freely and frequently, without which no good hedge can ever be made. We have seen a four year hedge, four feet high and as wide at the bottom, that formed a perfect barrier between a public road and a garden, and which had been made impenetrably thick merely by shearing, and without the *interlacing* which the editor of the Horticulturist deems so essential.

The *Buckthorn* is highly approved for its hardiness, close growth, poisonous nature to depredators on its stem or leaves, and its easy propagation and planting. To which we would add, that it should receive *high cultivation*, to cause a sufficiently stout growth.

The *Honey locust* is recommended as the best of any plant for *farm hedges;* the trees being planted 6 inches apart, and, as an exception to the common rule, allowed to grow untouched four years; and then cropped at five feet high, thus forming a live fence of young trees, needing afterwards an annual shearing.

The *Privet* forms a beautiful hedge, being almost evergreen; the *Japan quince* has been made into a "superb hedge," by Wm. Reid, who has about 400 feet in the highest perfection, and of close growth. The cost or scarcity of the plants will be a strong drawback on its general use.

The American *Arbor-vitæ* is pronounced the best for *evergreen* hedges; and the *Hemlock* the most beautiful, but not strong enough to obstruct cattle. The *Juniper* is nearly its equal, but apt to get too thick and die out in places. The *Red cedar* does well for a time, but is apt to drop its lower leaves and become unsightly. We have known old and impenetrable *natural* hedges of the Red cedar in Western New-York, but they had never been sheared. The *Norway spruce* is recommended as the best for forming quickly a screen from the wind. The editor of the Horticulturist attempted to raise plants of the *Holly*, but obtained only seventy-five plants from a bushel of seed; and he offers a fifty-dollar premium for the most perfect hedge of the American Holly, the plants raised from seeds of this year's growth

THE HOWELL PEAR.

A fine figure of this pear is given, and a description furnished by P. Barry, the former editor. We have fruited this pear for several years, and our experience accords with those of the many cultivators here mentioned, in favor of its great productiveness and uniform fairness and size, which render it valuable, although not of the highest flavor. It is stated by P. Barry, that in 1854, a single graft set in an old tree in 1852, furnished "*three pecks* of magnificent specimens"—a fact almost without a parallel.

THE CURCULIO—HIS OLFACTORIES.

Henry Croft, of Toronto, C. W., details some experiments with repelling this insect by means of fœtid odors. Assafœtida accomplished nothing at all—the mixture of lime and sulphur (supposed to evolve sulphuretted hydrogen) was quite unsuccessful. But last year a lady tried sulphuretted hydrogen, evolved in quantity from the hydrosulphide of ammonium (hung in ounce phials, with twice its bulk of water, and renewed every two or three days) and the result was quite successful—the trees being loaded with fruit, while the unprotected had none. The same result we are informed, occurred with several experiments this year. "It is scarcely necessary to remark," observes the writer, "that the delicious scent of the garden is by no means improved by the process,"—as all will comprehend when we add, that sulphuretted hydrogen is agreeable to those only who like the scent of excessively stale eggs. The question arises, would not a free use of the latter be a cheaper way to evolve this gas?

We should like to hear further results—our own experiments are not very favorable to the repulsion of the curculio by means of strong odors.

APPLE BORER.

The following method is proposed as a preventive for the apple borer.

It will be an improvement to your process in resisting the Apple borer, if you cover the cloth which you wrap round the boll of the tree, on one side, with a mixture of one ounce of grease to two pounds of rosin. The cloth is placed with the rosin side outward, and overlapping; the adhesive qualities will keep it in its place, and assist much in repelling the pest of our fruit trees. The process will be less troublesome than looking up the grown enemy with knife and crooked wire.

LUCY FITCH'S SEEDLING STRAWBERRY

Is pronounced by a correspondent at South Bend, Indiana, as a *four-fold* better bearer than Hovey, Early Scarlet, or Burr's New Pine. If it should prove so in Western New-York, it would constitute a prodigy, for limited beds here have repeatedly borne at the rate of 200 bushels or more per acre—800 bushels per acre would be decidedly respectable.

GRATTAN ON TREES.

A friend of Grattan proposed to cut down a fine old tree "because it stood in the way of the house." "You mistake," said Grattan, "it is the house that stands in the way of the tree, and if either must come down, let it be the house."

The Largest Nursery in the World.

It has been some years since Rochester has become the head quarters for nurseries in America. From only a few acres in extent, as they existed fifteen or twenty years since, the nurseries within ten miles of the city now cover at least one thousand densely planted acres.

The cost and annual product of these nurseries may be reckoned with some degree of accuracy, by taking as the basis of calculation, the estimates of several intelligent nurserymen of that place,—that a *well managed* acre would yield as an annual average from two to three hundred dollars—the expenses varying from fifty to seventy-five per cent of this amount. It would of course be greatly controlled by the kind of trees raised, the proportion of ornamentals, &c., but still more by the judgment, energy, and skill exercised by the manager,—for under the direction of some, the cost exceeds the profits, and the business consequently soon comes to an end.

But it is not our present object to pursue this inquiry, but to give to our readers the results of a few hours personal observation of one of the establishments to which we have alluded,—namely that of ELLWANGER and BARRY, who now have about *two hundred and seventy-five acres* actually occupied with their nurseries. These are not all in one contiguous piece of ground, but are comprised in four principal detached portions, of fifty to a hundred acres each, lying near each other. For extent and perfection combined, there is none in America that nearly approaches this establishment, and we have not been able to ascertain from satisfactory sources, that there is any in Europe—although there may possibly be a greater number of hands employed in some European nurseries, where labor is cheap and economy not studied.

Ellwanger and Barry had in regular employ at the time of our visit, over one hundred hands. In the spring, they have two or three hundred. Being in the midst of the budding season, they had sixteen active budders at work, with boys to tie after them, and other hands to precede them in preparing the stocks. These, added to such as were occupied in providing the buds, and in removing the ligatures, amounted to about *sixty* in all, connected with this department of operations. The buds are all cut by the proprietors themselves, and every pains taken to secure the greatest accuracy throughout this mammoth establishment—about twenty five thousand buds are inserted daily; and eight persons are required in connexion with the persons who cuts the buds, to remove the leaves from them on the spot.

They employ twenty five horses. During all the early part of the season, these were all required in cultivating the rows—at present only eighteen are needed for this purpose.

We observed *single fields*, of thirty or forty acres each, out of the many which constituted their establishment, which alone would be regarded as large for an entire nursery. A block of ninety thousand (90,000) cherry trees, one year from the bud, was especially noticed for its beautiful growth, most of the trees being already about five feet high, and as even along the tops, as if they had been sheared. A half acre of seedling pears, had as fine a growth as any we have ever seen, although they numbered at least one million. They must be worth at market prices, more than ten thousand dollars. Two hundred thousand were picked out from them early in summer, without any sensible diminution of their numbers. As nearly as we could estimate, there were at least two hundred thousand *Norway firs* two feet or more in height, and covering many acres.

Their ornamental department is on a very large scale. They have five hundred feet in length of glass propagating houses—seven acres in roses—and about half an acre densely planted with dahlias. They have a very rare collection of the celebrated new Californian tree, the *Wellingtonia gigantea*, being no less than five thousand fine young plants of this tree, grown from seed collected in California, and which were procured by gathering such as the squirrels had thrown down in their depredations. A year ago, these plants sold for a guinea each—at only one dollar now, here was a space of twenty feet square with a valuable farm.

In their grape houses, they have over ten thousand exotic grapes of fine growth for sale. Their collection of bearing specimen pear trees is unequalled in this country—they have five to six thousand, most of which are handsomely trained pyramids, comprising about four hundred sorts.

In such an immense establishment, our readers will naturally suppose there must be a great deal of confusion and much bad growth and bad cultivation. But the reverse is true in a striking degree. An excellent system appears to pervade the whole; and as many have remarked, they are remarkably successful in all they undertake, from the most delicate hot-house plants, to their vast plantations of large and thrifty fruit trees. Indeed there seems to be a sort of magic in all their attempts at propagation, so rarely are there any failures.

The reason of this remarkable success is their thorough experience and knowledge of the requisites for every operation, and an excellent soil, reduced to the best condition by subsoiling and constant tillage. A weed is a great rarity on their grounds.

The cost of conducting this establishment must of course be very great—although we have no definite information on the subject, we should judge from the estimates mentioned in an early part of this article, that they must amount to fifty thousand dollars annually. Their sales may be estimated from the same data, remembering that none are more successful, and that probably no nursery is better managed for pecuniary success.

There are several other nurseries at Rochester, of large size, which we were unable to visit—among which those of H. E. HOOKER & Co., FROST & Co., and S.

Moulson, are widely celebrated, each containing, as we have been informed, a hundred acres or more.

Since writing the foregoing, Ellwanger & Barry have, at our request, furnished the following statement of the number of acres occupied by each crop on their grounds.

Ornamental Department, 52 acres, viz:

Evergreens,	20 acres
Roses,	7 "
Flowering shrubs,	6 "
Magnolia seedlings in seed bed, thick,	1¼ "
Miscellaneous trees, specimens, &c.,	17¾—52

Fruit Department, 225 acres, viz:

Standard apples,	37 acres.
Dwarf do	11 "
Pears,	64 "
Cherries,	27 "
Plums,	12 "
Peaches,	18 "
Apricots,	3 "
Apple quinces,	4 "
Currants,	4 "
Gooseberries 4, grapes 4,	8 "
Pear seedlings,	2 "
Sundries—seedlings, rhubarb, asparagus, raspberries, strawberries, quince stocks, &c. &c.,	35—225

Mules in the Southern States.

Mr. Tucker—I see inquiries in the June number of the Cultivator, on the advantages of mules over horses for farm labor. Having been engaged in the business of mule raising to some extent, I can give my experience for what it is worth, without much trouble. The advantages of mules over horses are very decided, in almost every respect, in the slave states. Though more stubborn, they are more durable, stand the heat much better, keep in good order on less grain, are not half so easily frightened, and though they frequently run off with the plow or wagon, they seldom do much damage, as they only run from the lash, or merely to keep out of your way. They never appear to be frightened or scared like the horse, and most generally stop and go to feeding on the first green spot they find. This quality is a material consideration when the work is performed by careless slaves, or unprincipled hirelings, who work against time only for their support, without taking any interest or care for themselves or any one else. One other advantage is, they mature in about half the time the horse does, and need no currying nor half the shoeing of the horse, and are not liable to half the disease, and are much longer lived. They require about the same quantity of hay or rough food as horses, but will do quite as well on from one-half to two-thirds of the grain. They are much easier broke to the gear, and are scarcely ever known to balk—the more you whip him the more he pulls. As to fence breaking, that depends upon his raising altogether; once spoiled, there is no cure save that of constant use, which he thrives on. They are evidently adapted by nature for service, regular, and all the time if you choose. They are fond of company, and will not be confined in a pasture alone, especially while young, unless the fence be uncommonly good; and the habit of fence breaking once acquired, you had as well put him to constant use, if you have use for him, if not, sell him to those that have. I have known some cured by moving them to a new place; but constant employment is the best remedy.

The medium sized mules are best for service and endurance, all things considered, yet the larger the the more saleable. Were I to raise mules to sell, I would prefer the largest and tallest I could get; but for home use the medium size is preferable, not too large nor too small, with good proportions, not all legs, nor all body, but a reasonable proportion of both. Some have kicking propensities; this is partly owing to the stock; the colts of some jacks are worse than others; but, upon the whole, they are worse to kick than horses. They very seldom kick in the gear, unless they kick at something, and then they are apt to kick with pretty good judgment. The wildest colts are apt to make the gentlest and most tractable mules, when properly broke, whilst a very gentle colt may turn out to be stubborn, contrary, and often slow in motion. Upon the whole, we in the south could not well do without them, and the further south you go the more they are needed. G. *Claytonville, N. C.*

P. S. Can you, or any of your correspondents, tell the cause or cure for hogs' shedding their hoofs? It well nigh ruins them when they take it. And can you tell us what will cure a cow when swelled under the neck, or root of the tongue? The tongue often swells until the mouth is full and the tongue protrudes an inch or two out of the mouth. On examination after death, (and almost all die,) a hard swelling is found about the root of the tongue and throat—a solid, hard cake of flesh and matter.

Effects of Guano.

This region of country was but recently a waste of sedge fields. In my immediate neighborhood, land was sold, within my recollection, (I am not an elderly man yet,) at 4 to 5 dollars an acre. Similar land will now bring $30. Though in fact there is little similar land to be found, for most of it has undergone a wonderful transformation, and produces crops which would be satisfactory in 'the West.' Guano is the ordinary manure here now. Few farmers attempt to grow wheat without it, and most of us use it freely for corn, potatoes ruta bagas, and every thing else. Whether we can afford to do it or not, will be determined hereafter. On worn-out fields, its effect is magical. Nothing is easier than to convert a coat of sedge into a coat of clover, by a dose of guano, taking a crop of wheat to pay expenses. The Peruvian government have put up the price recently, which may have a good effect in compelling us to look to other sources of fertility, now too much neglected. Guano has done its work for many small farms. It has converted waste lands into good pastures, and filled the barns with provender. Those who have no 'old fields' left should look to their stock for the improvement of their farms. We cannot be forever tributary to the Peruvian government, and there is no reason why we should be. B. *Harford Co., Md.*

Foreign Correspondence.

Heidelberg—Rape, its Culture and Use—Beet Sugar—Cooking Vegetables.

Heidelberg lies on the Neckar, some miles above the confluence of that river with the Rhine. From the heights above the town the view northward and westward extends over the fertile Rhine and Neckar valley and the courses of the two streams may be plainly traced. The vegetation of this and the neighboring valley, was far more advanced at the date of my visit April 23, than that of Bavavia and Wirtemburg. The spring field-operations seemed nearly completed and winter crops were well up. My notice was particularly arrested by the winter rape (*Brassica napus-oleifera.*) I was astonished to find that while grass had attained at most, a height of 3 to 4 inches, this plant was 2 or even 3 feet high, and already in blossom. It is chiefly cultivated for the sake of the oil obtained from the seeds, which is one of the most common means of illumination in Germany. The oil has a pale greenish yellow color, is free from disagreeable odor, burns clearly, and is greatly preferable to whale-oil. The rape cake, or residue after the expression of the oil, constitutes a highly nutritious food, valuable as an addition to coarse fodder, especially for fattening animals. It has a peculiar taste which is at first disagreeable to cattle, but they shortly get accustomed to it, and learn to relish it. It is then equal in every respect to linseed-oil-cake. When there is a deficiency of food in the spring, the green plant is often used as fodder. This plant is said to be of easy cultivation, and appears worthy of extended trial in the United States.

The soil of the Rhine and Neckar valley is good, and the tillage is admirable. One of the chief productions of this country is the sugar beet, from which immense quantities of sugar are annually fabricated.

I have lately observed in our agricutlural papers, inquiries concerning the manufacture of beet sugar in the United States, viz, whether it could be carried on profitably there. In your columns, articles have appeared representing the success of the manufacture there as highly problematical. From what I can learn, these opinions are perfectly just. The fact that sugar costs considerably more here than in the United States, and that the production here is protected by duties on foreign sugars, sufficiently show the true state of the case.

In Europe field-laborers are abundant, and receive but small wages; hence the cultivation of the beet can be carried on very cheaply; besides, all other sources of a supply of sugar are distant. With us the matter is reversed, labor is dear, and the sugar cane is grown profitably in our southern states. The extraction of sugar from the cane is a simpler process than its preparation from the beet, and it is a well ascertained fact that as much sugar is yielded by a crop of beet roots of moderate size and medium weight, as when the roots are of mammoth dimensions. In fact beets are not bought by the manufacturers by the bushel or by the ton, but by the acre, or if bought by measure, the price paid diminishes in proportion as the yield exceeds a certain limit. The cane furnishes itself the fuel necessary for the evaporation of the juice, while the beet does not. The farther north the cane is cultivated, the less sugar and the more salts are contained in its sap. The presence of salt diminishes again the quantity of crystalized sugar obtainable from the sap, since, in their presence, the sugar is converted into molasses, during the processes of manufacture. In tropical countries the most beautiful sugar is often obtained directly from the juice of the cane without any purification and without the formation of molasses. To the north, as in Louisiana, the quantity of molasses formed during the manufacture (it does not exist in the fresh juice) is very considerable, except when the most refined methods are employed. Finally, other things being equal, still more loss occurs in making sugar from the beet in colder climates, and, in fact, it is well settled that beets or cane grown on new soil, rich in salts of potash and soda, or upon fields which receive much of these substances in manure, contain less sugar, and yield less of what they do contain in the crystallized form, than when raised on poorer soils. Hot climates are best adapted to the production of sugar from the cane, and doubtless the sugar beet would yield a juice richer in sugar, more free from salts and fermentable matters, and therefore better adapted for the production of this indispensable article, if cultivated further south than has hitherto been the custom. Whether the culture of the two plants might not be combined, is a question to which I invite the attention of our Planters.

It is by no means impossible that a proper combination of enterprise, capital, and Yankee ingenuity, under scientific guidance, might establish the beet sugar production on a profitable basis in our western country where lands are cheap; for the processes of manufacture are still very imperfect, and doubtless chemistry, which has been mainly instrumental in bringing the business to its present advancement, can surmount the existing difficulties.

I conclude with a translation of a note by Prof. BOETHGER, of Frankfort, "On the Influence of Water in Cooking Vegetables," which I find in an agricultural paper:

"If one portion of vegetables be boiled in pure (distilled or rain) water, and another in water to which a little salt has been added, a decided difference is perceptible in the taste and odor, and especially in the tenderness of the two portions. Vegetables, boiled in pure water, are vastly inferior in flavor. This inferiority may go so far, in case of onions, that they are almost entirely destitute of odor or taste, though when cooked in salted water, they possess, in addition to the pleasant salt taste, a peculiar sweetness and a strong aroma. They also contain more soluble matter than when cooked in pure water. Water which contains 1–420 of its weight of common salt, is far better for cooking vegetables, than pure water, because the salt hinders the solution and evaporation of the soluble and flavoring principles of the vegetables. This explains the advantage of the general use of salt in cooking, and the impossibility of correcting by subsequent additions of salt, the want of flavor in vegetables that have been boiled without it." SAMUEL W. JOHNSON.

Domestic Economy.

Remedy for the Bite of a Mad Dog.

While on a tour recently in the vicinity of the Ottawa river in Canada, we frequently heard it said that there was no difficulty in preventing the usual fatal results from the bite of a mad dog. It was said the remedy had been long known and administered with invariable success by many of the Catholic clergy throughout the Lower Province. Having ascertained that the Rev. John Edwards, Baptist minister at Clarence and Petite Nation, could furnish the recipe, we applied to him, and he has favored us with the following:

Luther Tucker, Esq.—I send the annexed recipe for insertion in your valuable paper, hoping it may meet the eye of any individual who should have the misfortune to be bitten by a mad dog. Of its efficacy to prevent Hydrophobia, I have the fullest confidence, having seen persons when bitten, who took the remedy, and no harm followed, whilst animals bitten by the same dogs, died raving mad, or were killed to prevent mischief.

A gentleman of undoubted veracity, from whom I obtained this recipe 20 years ago, assured me that he had known it to be used successfully in at least 20 cases where there was not a doubt as to the madness of the dog inflicting the bite, nor of the entire exemption from any serious consequences to the person bitten, after following this prescription.

I would add that while many instances have come to my knowledge of persons having been bitten by mad dogs, in this part of the country, I never heard of a single fatal result; which I am satisfied must be attributed to the knowledge of the above remedy. Jn. Edwards, *Baptist Minister, Clarence and Petite Nation, Ottawa River, Canada.*

Recipe.—Burn oyster shells to lime; pulverize and sift through fine gauze or muslin: put two tablespoonfuls (heaped) into a vessel; mix with eggs to the consistency of cream or butter for pancakes, and fry in a pan with a good sized piece of fresh butter or some sweet oil.

Let the person, as soon as may be after being bitten, eat this cake, in the morning, and taste neither food nor drink for six hours, when he may eat and drink as usual. Three such cakes to be eaten *as above*, on three alternate mornings.

This is for an adult; the quantity for a child may be administered according to age.

Elder Wine.

Pick the elder berries from the stalk, and to every gallon of the fruit add one gallon of water, having first mashed the fruit. Let this liquor stand and macerate three days; then put them into a large pan or copper, to boil; when the fruit has boiled an hour, or until quite soft, strain the liquor through a sieve, and to every gallon add three pounds of moist sugar, some cloves, allspice and ginger, and boil three-quarters of an hour. Pour into a puncheon or pot, and when milk warm, toast a piece of bread, cover it with yeast, and put it into the liquor, and allow it to work for a day or two. Then put it into a barrel or bottles, leaving them open for awhile, until the violence of the working has subsided; afterwards fasten up. It is fit to drink in a month. Peter Sidebotham. *Valley Falls, R. I.*

Receipt for Making Rice Bread.

One and a half pounds of rice put in a gallon of water and stirred till it becomes quite soft, then mix it while warm with fourteen pounds of flour, and at the same time add a teaspoonful of salt and the usual quantity of yeast. Let it stand to rise, then make it into loaves and bake it the usual way. We have found the above quantity of flour and rice to make us twenty-eight pounds of excellent bread, and independent of the great saving, we like it better than bread baked in the usual way. John Sillett.

A Certain Cure for a Rattle-Snake Bite or Spider Sting.—Take the yolk of a good egg, put it in a tea cup, and stir in as much salt as will make it thick enough not to run off, and spread a plaster and apply to the wound, and I would insure your life for sixpence. The subscriber has tried the above remedy in a number of cases, and never knew it to fail in one. P. Prettyman, M. D. *Portland, Oregon.*

Valuable Recipes.

To Make Yeast.—Take one handful of hops, one apple, one potato sliced, boil in two quarts of water; while hot, strain off and stir in wheat flour until it is thick as paste—coarse flour is best. Grate one large apple, one large potato, place them in a gallon jar, pour in the batter, when sufficiently cool, add a little yeast; in twelve hours it will be fit for use.—*Ohio Cultivator.*

Quick Made Blacking for Shoes.—Beat up two eggs, add a teaspoonful of alcohol, a lump of sugar, and ivory black to thicken; it should be laid on and polished like leather blacking, and left a day to harden before it is used.

To Preserve Currants.—Cut them carefully from the stalks, so that the skins may not be broken. Put them into perfectly clean and dry bottles, adding gradually as you fill them, ten ounces of finely sifted loaf sugar, so that the sugar may fall on each layer of currants. Fill the bottles, and seal the corks, and they will keep till nature furnishes you with a new crop.

White Currant Wine.—One quart of currant juice, two quarts of water, three pounds white sugar; mix well together, let it stand twenty-four hours, then skim it well, then put it into demijohns and let it remain six weeks, corked looosely, then bottle it.

Red Currant Wine.—For ten gallons; three gallons juice, thirty-five pounds of common sugar, fill with water. Leave the cask open until after fermentation is over, then bung up; let it stand one year; then bottle. No addition of spirits.

Fleas, Bed-bugs, &c.—A writer in the Gardener's Chronicle recommends the use of oil of wormwood to keep off the insects above named. Put a few drops on a handkerchief or a piece of folded muslin, and put in the bed haunted by the enemy. Neither of these tribes can bear wormwood, and the hint is especially commended to travelers who are liable to fall among the topers of blood.

Wash for Sunburn.—Take two drachms of borax, one drachm of Roman alum, one drachm of camphor, half an ounce of sugar-candy and a pound of ox-gall. Mix and stir well for ten minutes or so, and repeat this, stirring three or four times a day for a fortnight, till it appears clear and transparent. Strain through blotting paper, and bottle up for use.

Dairy Management and Butter Making.

That a very high temperature, or a very low one, has *some* effect upon the amount of cream which may be raised from any given quantity of milk, is a proposition which will readily be assented to by almost every one who has any acquaintance with the affairs of a dairy. But very few seem to have any but the most vague and inaccurate impressions in regard to the *exact* amount of influence exerted in this way by any given range of temperature. Judging from the wild guessing and the very diverse answers given, within a limited sphere, to certain questions intended to bring out the prevailing opinions concerning this matter, we would say that the largest number of those engaged in the care of a dairy would answer or 'guess' a long way from the exact truth in reply to a question as to the degree of temperature at which milk will throw up the largest amonnt of cream. Very few, indeed, we think, could come very near to exactness if asked to calculate the amount of loss suffered by diminution of cream from any certain quantity of milk during a month or a season of very warm or very cold weather. Very few could tell whether the amount of loss from this source would warrant any given amount of outlay for the purpose of being able to regulate the temperature of the milk-room by the employment of means to raise the temperature in cold weather, and to lower it in that which was very hot and sultry.

In many large dairies it would be a matter of considerable pecuniary importance, to be able to determine *accurately* the amount of loss from the diminished quantity of cream, caused by a temperature either too high or too low. The amount of expenditure which might safely or profitably be made in obviating this injurious influence could then be calculated with a satisfactory degree of certainty. To such as may desire information and reliable data in regard to this matter we submit an abstract of some observations lately made to the Royal Agricultural Society of England, by a distinguished dairy farmer of that country, of whose mode of feeding dairy cows some account was given, a few weeks ago, in the columns of this paper.

As a considerable falling off in receipts from the dairy was observed by Mr. Horsfall, the gentleman referred to, in the month of November of a certain year, and as no change had taken place in the number or circumstances of his cows, or in their food, he was led to inquire into the cause. He found that the same quantity of milk was brought to the dairy-maid, and that the deficiency arose solely from a less quantity of butter. The weather had been very cold. Upon testing the quantity of butter obtained from the cream of 16 quarts of milk he found that there were only 16 ounces in the place of 26 ounces had during warmer weather from the cream of the same quantity of milk. On trying the temperature of the milk-room he found it somewhat below 40 degrees; and it then occurred to Mr. H. that the deficiency of butter most probably arose from a too low temperature in the dairy. To raise the temperature was the obvious remedy. For this purpose he ordered a shallow open cistern to be made of wood, with a rim of about three inches along each side and to be lined with thin sheet lead. Water could be made to flow through this cistern to the depth of three inches. At its lower extremity was a hollow plug having perforated holes, at least three inches above the bottom, through which the water could make its escape as fast as new supplies of hot water came from the feeding pipe. When the new milk is brought in, the pans are placed in this cistern, and hot water immediately let in flowing along till it rises to the height of the holes perforated in the tube which conducts it away. When the water has been used and become cool, the plug is drawn and the cistern emptied entirely of water. By this means and by letting in hot air from his kitchen, the dairy attains a temperature, in winter, of from 52 to 54 degrees. At this temperature Mr. H. again obtained 26 ounces of butter from the cream of 16 quarts of milk. This was an increase of a little over 50 per cent.

By using cold water in summer through the same contrivance the milk can be kept from souring as soon as it otherwise would. In both seasons—summer and winter—Mr. H. obtains the largest yield of butter, when his dairy is about from 52° to 55° of Fahrenheit's thermometer.

United States Agricultural Society.

A GRAND NATIONAL EXHIBITION OF STOCK—*Horses, Cattle, Sheep and Swine*—open to competition to all the States of the Union, and to the British Provinces, will be held by the UNITED STATES AGRICULTURAL SOCIETY, in the City of BOSTON, on TUESDAY, WEDNESDAY, THURSDAY and FRIDAY, October 23d, 24th, 25th and 26th.

TWENTY-THOUSAND DOLLARS have been guaranteed by patriotic gentlemen of BOSTON and its vicinity to defray the expenses; the City of Boston has generously granted to the Society for present use, a fine public square of fifty acres; and TEN THOUSAND DOLLARS will be offered in PREMIUMS, in the various departments.

The previous Exhibitions of this Society—at Springfield, Massachusetts, in 1853, and at Springfield, Ohio, in 1854—were eminently successful, and no efforts will be spared to make the present SHOW, combining as it does, the Four Great Departments of FARMING STOCK, superior to its predecessors.

The Premium List, with the Rules of the Exhibition will be forwarded to all who will address the President or Secretary, at Boston, to that effect.

It is earnestly hoped that all Breeders and owners of Fine Stock will feel it to be a duty, as it certainly is for their interest, to contribute to the Show.

The List of Entries, Exhibitors and Award of Premiums, and all the proceedings of the Exhibition, will be published in the JOURNAL of the SOCIETY, for 1855. Annual Members of the Society, who desire to receive the Journal, should remember to renew their subscriptions. MARSHALL P. WILDER, *President.*

WILLIAM S. KING, *Secretary.*

Cultivation of Winter Wheat.

No soil can produce wheat unless it contains, in an available condition, all the inorganic elements of plants. It does not follow, however, that if these are present in sufficient quantity, the soil will produce good wheat. Indian corn is composed of precisely the same elements as wheat, and the proportions are nearly identical; yet we have much land that produces excellent corn, that is not adapted to wheat culture. We know so little in regard to the manurial requirements of Indian corn, that we can offer no chemical explanations of this fact. We know that wheat requires in the soil, a large quantity of ammonia, for the production of a good crop; and nearly every well established fact in regard to corn culture goes to show that the same is true of this crop. We come to the conclusion therefore, that while it is probable there are some chemical causes why one soil is better adapted to wheat culture than another, yet that, so far as we can see at present, the difference is owing principally to the mechanical conditions and texture of the soil.

Wheat delights in a compact, calcareous loam, rather clayey than sandy. We have heard farmers say that they preferred a sandy to a clayey soil for wheat, but this opinion arises from the fact that most of our clay land needs underdraining. A calcareous clay that is underdrained, or naturally dry, is better for wheat than a sandy soil under similar conditions. Why it is, we know in part;—the double silicate of alumina and soda parts with its soda and absorbs ammonia from rain water, the atmosphere, and from any other bodies containing it. Sand does not possess this property; and herein lies one reason why a clay soil is better for wheat than a sandy one. Clays, too, have the power of absorbing and retaining moisture to a much greater extent than sand. But we can overcome both these drawbacks by an extensive cultivation of clover, peas, turnips, &c., on the sandy soils. These plants absorb ammonia from rain water and the atmosphere, and thus accomplish the same end as the double silicate of alumina and soda, while the carbonaceous products arising from their decomposition in the soil give the soil an increased capacity for absorbing and retaining moisture. These considerations lead to the conclusion that the farmer has the means in his power to make a sandy soil as good for wheat-growing purposes as a clayey one, in every respect, so far as we can see to the contrary with the little light we possess on this subject, except in its mechanical condition.

As we have said, a wheat soil must be compact. If it is not so naturally, mechanical means should be employed to compress it. Treading light wheat land in the fall or early in the spring with sheep, is frequently beneficial, and a good heavy roller is decidedly advantageous. Crosskill's Clod Crusher, compressing land, as it does, similarly to the treading of sheep, is found very useful on sandy wheat fields in England. We are earnest advocates of deep plowing and thorough pulverization of the soil, but these must not be carried to excess in wheat culture. It is easy to make the light land too fine and loose for wheat. When wheat is sown on a clover sod after one plowing, it is not advisable to plow it too deep; if the sod is all covered and a good "seed bed" obtained that is enough. Subsoil; and plow deep for corn and root crops, and if you summer fallow, for wheat also, but if wheat is sown at one furrow on a clover sod turned under immediately before seeding, we should seldom go more than six inches deep. The best large field of wheat we ever saw in England, was on a calcareous loam that had been two years in red clover, grazed with sheep, which, a considerable portion of the time, were allowed a lb. of oil-cake per day. It was plowed about three inches deep, just before sowing, and a bushel and a half of seed drilled in per acre, one foot apart in the drills. The yield was 55 bushels per acre.

The question of thick or thin sowing, which was agitated so fiercely a few years ago by Davis, Mechi, Huxtable, and other ultra agricultural reformers, is now pretty much decided. A peck of seed to the acre is amply sufficient, as they contended, if it all grows, and the crop escapes wire worms, winter-kill, &c; but it is found that those who practice such extreme thin seeding always lose more from these causes than those who sow thicker, and that these losses more than counterbalance the gain from saving a bushel or two of seed per acre. Taking into consideration the many pests that infest our wheat crop, we are inclined to think, that, if anything, we sow too thin. Two bushels per acre is none too much when sown broadcast, or a bushel and three pecks when sown by the drill. The majority of English farmers sow three bushels per acre, and we know some of them who sow 3½ and even 4 bushels per acre. This would be greatly too much in our climate, but we must not err in the other extreme.

The best artificial fertilizer for wheat is unquestionably Peruvian guano. The lumps of the guano should first be sifted out and crushed. It can then be mixed with muck in equal parts, or sown alone, broadcast, at the rate of from 200 lbs. to 400 lbs. per acre. It should be harrowed or cultivated in, thoroughly incorporating it with the soil, before sowing the seed. This we prefer; on very sandy soil, it might be advisable to sow 100 lbs. per acre in the fall after the wheat is sown, and another 100 lbs. early in the spring. On heavy land it should always be sown in the fall, and the longer it is incorporated with the soil before the seed is sown the better. The earth is a stomach in which food for plants is digested and prepared; and time should be allowed for it to accomplish this before the plants require nourishment. On light soils, however, there is danger of its leaching if sown too early; and there is less necessity for doing so, as from the admission of air, light and heat, chemical changes take place much more speedily in sandy soils than in those of a close texture.

Plaster is frequently recommended for wheat, and there are many instances recorded where it has proved very beneficial, but the mass of testimony is against it. In the wheat growing districts of this state, it is frequently sown on wheat in the fall; but it is rather with an eye to its effect on the clover, to be sown the

following spring, than to any action it has on the wheat. Many will object to this, and contend that plaster does good on wheat. To this we would say, that if plaster acts well as a manure for wheat on your land, by all means use it. When it sells from $2 to $5 per ton, it is the cheapest of fertilizers on all soils where experience shows it to de beneficial. At present, experience —or what is simply a short cut to experience, experiment—is the only guide in this matter. The same may be said in regard to salt as a manure. Many instances are recorded where it has had a magical effect. Some such have come under our observation. As a general rule however, salt is of little benefit on wheat. Prof. WAY suggests that salt acts by increasing the solubility of the silicate of alumina and ammonia. Water containing salt will take up a very much larger quantity of this salt than pure or ordinary rain water. He has expressed the opinion that the silica which forms the stiffening of the straw of wheat, is taken up by the plant in the form of this salt—the ammonia evaporating as the silicic acid is deposited on the straw. If this ingenious hypothesis proves correct, we have at once an explanation of the well known fact that salt stiffens the straw of wheat, and has a tendency to retard excessive and injurious luxuriance. We would say of salt, as of plasler, it is cheap, and every farmer should experiment and ascertain its effect on his own soil. Analysis, in the present state of chemical science, will not aid, though when this subject is better understood, it is highly probable that it may prove useful.

Culture of Indian Corn, &c.

EDITORS OF COUNTRY GENTLEMAN—I have raised corn in drills for several years, and adopted it as my general practice, being satisfied it produces more by that mode of culture than in hills, and no more labor to cultivate, with the exception of cutting up. I have made no actual test by way of experiment, yet I am satisfied that the yield is very considerable more. It ears better in drills. Each stalk of corn requires, in our latitude, about 3 square feet of ground, the same as the mangold wurtzel or the ruta baga; and the best possible product which could be obtained, would be by planting them singly at equal distances apart, about 20 inches. I have known an acre of corn cultivated this way, which was said to produce 130 bushels of shelled corn Owing to the abundance of weeds, we have the nearest approximation to this, we can conveniently cultivate,in planting in drills three feet apart and a foot asunder in the drill. This will enable the corn, at the last dressing, just as the tassel appears, to cover the whole ground, and prevent the further growth of weeds. If the ground could then produce weeds, it could produce more stalks of corn.

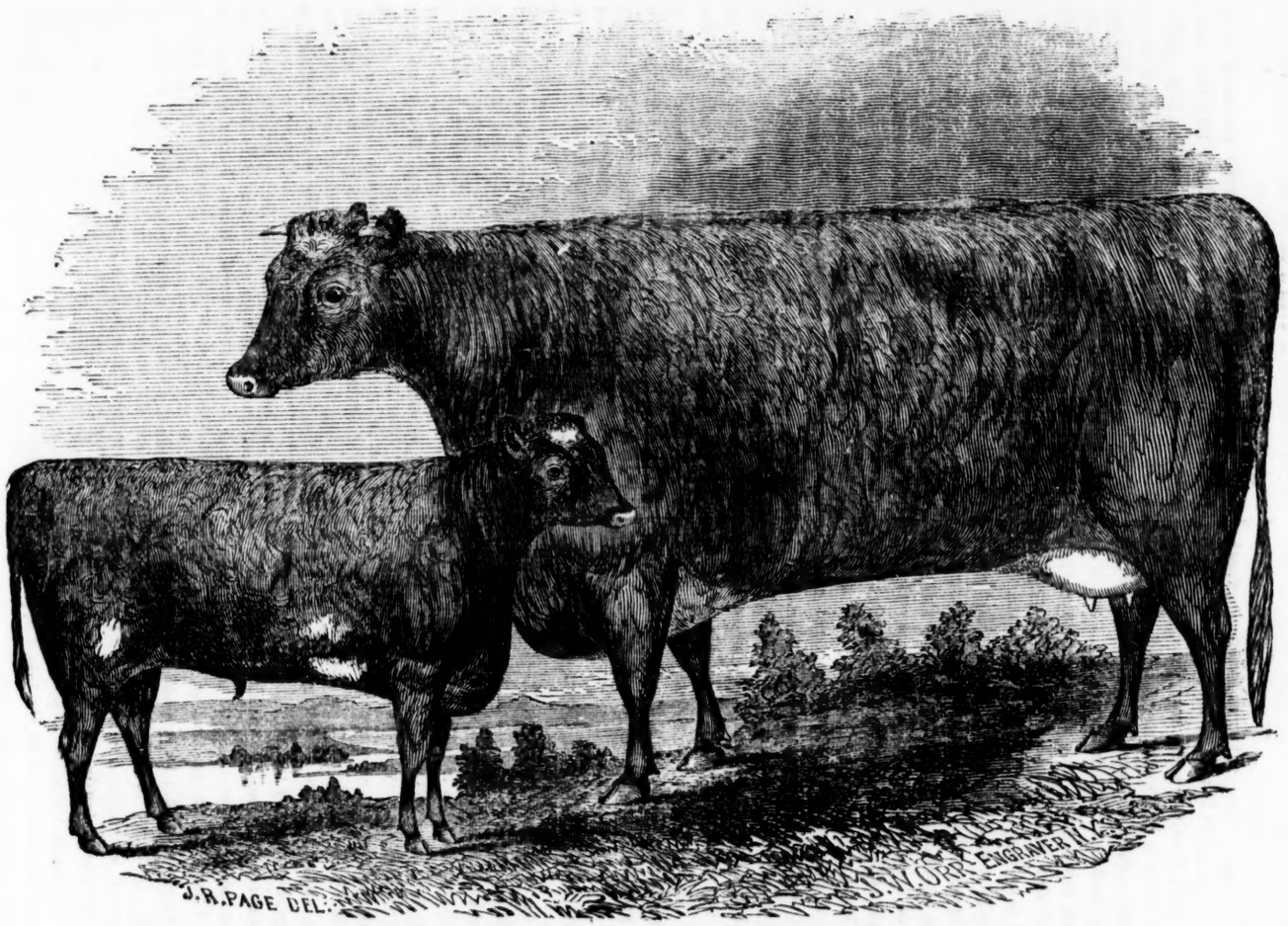
I plow deep, turn sod, manure, or whatever nutritive matter there may be on the ground, under, and then so cultivate as not to have that matter disturbed during the year, making the ground as near a hot-bed as possible; then use the cultivator, hand or plow, to exterminate the weeds. If there are no weeds or grass, no dressing is required. The ground is best pulverized by the fermentation beneath, and this mode is composting the manure for after crops.

Probably rotted manure dragged in at the surface of the ground, and then frequently stirred up, would produce as good or even a better crop of corn, but not so good for the after crops.

Some years ago I had a field well manured with fresh long manure—straw thrown daily iuto the barnyard—I should say about 20 cords to the acre, cultivated in the way above stated, which produced about 60 bushels of corn to the acre; a good crop of barley succeeded, and then a good crop of winter wheat, when it was seeded down and used for meadows. On the fifth year in meadow, the eighth from the manuring, there was a severe drouth, but that field yielded at least 2½ tons of hay per acre, while the adjoining meadow of the same quality of land and seeded the same time, which had not been manured, yielded about a half ton per acre. The land was a clay loam, intermixed with shift gravel.

I do not discredit your correspondent Mr. BREWER'S statement, in favor of shallow plowing for corn, as good corn can be raised without any plowing at all. The squaws of Squawkey Hill, Livingston Co., formerly raised corn by pulling up the old stalk and planting the seed in the hole produced thereby, and after the corn was up, digging the ground with hoes. I have grown good corn in the garden by spading up merely for the hills or drills, and then spading the whole ground by way of hoeing. Mr. BREWER cultivates his ground after the corn is up. I think it is more practicable to do so before planting.

The modus operandi of the growth of corn is but little known. A few observations have led me to believe but little of the nutriment of corn passes up through the roots. I have often observed that stalks of corn pulled by the crows, and held to the earth by a single fibrous root, laying flat upon the ground, would grow about as well as those standing; and two years ago, when dressing my corn the last time, I observed a stalk 2½ feet in length, disengaged from the field by a hard lump of earth about the size of a pint bowl, and on inspecting it I found no appearance of the roots passing through the lump. I set the same carefully up between two stalks, so that it should stand up, and often after that inspected it, and found it doing well until the brace roots were so prominent I could not distinguish it from the others. Hence I conclude the corn is principally fed through the leaves, and the manuring, the moisture, and cultivation, should be such as to gradually send up a certain gas through the growing season. Perhaps this could be done by sowing manure from time to time through the season, without disturbing the earth, but certainly can be done much easier by turning manure deep under so as to produce a fermenting mass the summer through. In this way the ground will be mellow at harvest, even if not stirred after planting. The corn needs neither hoeing nor dressing; it is the weeds which require exterminating. I have left part of a field, where there were but few weeds, by way of experiment, without any cultivation after planting, and found no difference in the product. The land was a clover lay, turned under in May, plowed eight inches deep, dragged, marked, and planted with sod under. This was on a gravelly loam soil—upland alluvial. I have plowed this spring on bottom alluvial from 12 to 17 inches deep for corn. Can tell the result better hereafter. L. *Strachan Place, July* 25, 1855.



Sunshine and her Calf Essex, the property of B. & C. S. Haines, Elizabethtown, N. J.

SUNSHINE--Red; calved April, 1852; sire, imported Duke of Exeter (10152)—Dam, Snowstorm, by imported Duke of Wellington (3644)—g. d. Old Snowstorm, by imported Alexander (4)—gr g. d., Fashion, by Otto (9463)—gr. gr. g. d., Kicker, by Moscow (9413—)gr. gr. gr. g. d., Princess, by Wellington (684)—gr. gr. gr. gr. g. d., Old Princess, by Wynyard (703). ESSEX—Red; calved December 10th, 1854; sire, imported Wolviston (10176)—Dam, Sunshine, as above.

The Cultivator—1855 and 1856

The season of the year reminds us that we may once more address the friends of this paper, now ere long to enter upon its Twenty-third volume. To the Twenty-second. for 1855, we confidently refer as an improvement on its predecessors, and an earnest of still farther effort in the future. We beg its readers to give it a thorough examination, either by the side of its own past issues, or those of any other similar work.

With its circulation the present year, we have been very much encouraged. It has increased largely when most have fallen off. Its correspondents have never been more able. The commendation of its friends has never been more hearty.

And thus we are lead to look forward to 1856, with renewed hopes and enlarged plans. THE CULTIVATOR, at its present price and value, ought to reach a circulation of from FORTY to FIFTY THOUSAND COPIES, and this we have no small prospect and expectation of obtaining.

EVERY FARMER should take it and read it. If we consider how vast their numbers are, how large a portion of them take no Agricultural paper at all, even this extended circulation will seem in comparison small. And if ever FIFTY CENTS was so invested by a Farmer as to produce the greatest good and the largest returns, it will have been paid for a subscription to THE CULTIVATOR.

Will not our friends take hold of this matter earnestly? Every subscriber obtained should be induced to lend his assistance to the good work, and the lists, thus made up, would be unprecedented in the history of Agricultural papers. We depend upon their aid. The past has shown their estimate of our labors. To the future we look for repeated assurances of their confidence. With the heavy crops and "easy times" that are now promised the Agricultural classes, their exertions in behalf of the CULTIAVTOR must be successful.

To Our Agents, Subscribers and Friends.

We shall continue to furnish THE CULTIVATOR as heretofore—a SINGLE COPY for Fifty Cents; and where TWENTY SUBSCRIBERS are obtained we will send to each as a Premium the ANNUAL REGISTER for 1856, and ☞ to the Agent ☜ a BOUND COPY.

We have found, by the experience of the present year, that the plan of giving the REGISTER as a Premium works most admirably. It is the only mode in which Premiums for enlarged circulation can so be given as to benefit Each Subscriber equally. We desire to call particular attention to No. 2 for 1856. It will be fully equal in value and beauty, to that for 1855. It has now become A STANDARD WORK. When it is considered that this is GIVEN AWAY to those who pay Fifty Cents for the Cultivator in Clubs, the unparalleled inducements we offer become apparent.

In tabular form, then, these are

OUR TERMS.

SINGLE COPY.....FIFTY CENTS.
TWENTY COPIES, with Premium to each Subscriber and to the Agent,.....$10.00

In the next Number of the Cultivator we shall announce our List of Prizes for 1856.

Our Prospectuses for next year, and sample copies of the Register for 1856, will be ready to send out with the November Cultivator, and we shall be happy to furnish them to every person who will endeavor to get up a Club.

The Country Gentleman.

This paper, the circulation of which has been constantly increasing since its first year, and especially during 1855, will enter with January upon its Seventh Volume. It is rapidly gaining ground, and as a weekly paper for the Farmer and the Farmer's Family has no equal.

We know that many do not wish to take any other weekly than their home paper, which they feel it their duty to patronize, and to these we offer the CULTIVATOR. But to the readers of that paper, who have had opportunities of judging of the character and style of our publications, and who have been thereby led to take more enlarged views of the subject, we offer the COUNTRY GENTLEMAN with confidence, as containing a very considerably greater quantity and variety of matter on strictly rural subjects, and besides, as furnishing a complete Record of Passing Events, and a Miscellaneous Department calculated to interest, amuse and instruct every member of a family. In its Horticultural and Fireside Departments, it supplies all that is desired in a family paper by those who possess but a strip of land for garden operations, and its *Farm* pages will be found alone to contain more for the benefit of larger Agriculturists than the similar department in any of our cotemporaries.

These being the facts, we look forward to a large increase in the support extended to our Weekly for 1856. We shall be glad to furnish sample copies, and to have the attention of all who are interested in any way in Rural pursuits drawn to the subject.

THE CUT WORM.—A correspondent of the *New England Farmer*, whose cabbages, tomatoes, &c., the cut worm frequently destroyed, wrapped around the stem of each plant, before transplanting, a piece of paper, extending from a short distance above the root to the first leaf. It is done quick, and is a perfect remedy. The paper lasting till the plant is large enough to take care of itself.

Fertility of Subsoils

Messrs. Editors—It seems to be questioned of late by some of your correspondents whether there is much in the short phrase which stands at the head of this brief article. I know it was once considered a heresy in farming, to thrust the plow beneath the surface soil, or think of bringing to the light earth which the sun had never shone upon. But I had supposed that these ideas had become obsolete—that the beaten track of our fathers, in surface cultivation and scanty crops, had been abandoned for a more enlightened and improved method of extracting from the soil greater returns by strengthening and deepening its powers to yield without exhaustion. That this is, and has been the case, the improved condition of a great number of farms in this part of the country affords abundant proof. Farmers have learnt that there is fertility in subsoils, and one of the prominent features of modern improvement, is, to break into and bring up the subsoils and get 8 to 12 inches of mellow earth to nourish the roots and sustain the growing crop, instead of 3 to 5 inches as was formerly the general practice. There may be isolated cases in some peculiar localities, where no perceptible benefit can be realized by disturbing the subsoil, and perhaps a positive injury, but these are cases, "like angels' visits, few and far between."

My purpose in writing now, is to relate one instance of fertility—my first experiment with subsoils. In the spring of 1826, which was followed by one of the driest summers ever known in this region, and remembered as the great grasshopper season, when on the uplands and plains every green thing was eaten by the myriad of these destructive insects, which covered the earth and filled the air, I contracted to plant and raise ten acres of corn, and after harvesting the crop, to divide it equally with the owner of the land. I was then too poor to own any land, and workiug another's land upon shares was the best I could do. It was alluvion, or river bottom land, which was the only kind of land that escaped the ravages of the grasshopper that season. Adjoining one edge of this field, was a high sandy bluff, and where there was a slight depression, the water collected and ran down, at the time of an uncommon great fall of rain in Oct. 1820, and washed out the bank to the depth of 20 feet, depositing the dirt on the meadow below, from 6 to 18 inches deep, and covering about one acre of the surface of the meadow. The owner of this beautiful intervale had lamented and mourned over the loss of this acre—not only the land was gone, out of sight, (a loss of $75 at least,)—but that unsightly mass of sand troubled him—a barren spot amidst fertility. A few thistles and weeds began to spring up upon the outskirts; it seemed to me there might be soil there, or something that would make soil, and as it lay in one corner of the field I was to cultivate that season, I proposed to manure and plow it with the field, to which he assented, but neither he nor I had much faith in a crop of corn from it. There was not manure enough to put only about 15 ox-cart ads to the acre upon the whole field, spread broadcast—no more put upon the barren acre than upon the other part—but I plowed it twice the depth, about 10 inches; it was all hoed well twice; after the first hoeing a mixture of slaked lime, unleached ashes and plaster, was applied, a single handful to each hill of corn. In every particular, the whole field was treated alike; but the corn on the sandy loam that had washed in, six years previous, took the start early in the season, and kept ahead throughout. The average yield of the whole field, was 62 bushels of shelled corn to the acre, and the supposed barren acre had at least one-fifth more than any other part of the field. This convinced me that susboils are worth looking after, and my attention has since ever been drawn to deep plowing. Some of this soil was washed out 20 feet below the surface, and yet possessed all the elements of fertility in an eminent degree. The owner of this land told me, a few years afterwards, that this acre continued to produce equal to the best of his intervale, only it was inclined to grow thistles rather too rank. Every one who has had experience with Canada thistles knows that they flourish best on the deepest and richest soils.

J. W. Colburne. *Springfield, Vt., Aug.* 26, 1855.

Fencing with Wood and Wire.

Messrs. Editors—In answer to the inquiry of B. F. T. of Louisville, (Ky.) in the Cultivator of June last, we would recommend fencing lands subject to inundation, with wood and wire, as follows:

The wire to be used is one-eighth of an inch in diameter—may be less. Two wires at the top make the top rail, and two the bottom rail. The two sets of wires may be three feet apart. Fasten the wires by winding them twice round a large bolt driven into a tree, and secure the loose ends by afterwards weaving them into the slats of the fence. The coils of wire should be kept some yards apart to prevent being entangled while building; and a stake driven into the ground some yards ahead, (to be moved as occasion requires) with holes in the same, through which to pass the wires before fastening to the first tree or post. A strip of inch board, four feet long and three inches wide, is now placed erect between the wires, next the tree, and the wires crossed; another board set up and the wires crossed back, and so on, fastening to the trees or posts by staples driven through the boards astride the wires: and you now have a strong durable fence, warped with wire, and filled with wood.

The advantages claimed for this kind of fence, are—It is suitable for the border of a river, the edge of a grove, or across a stream, and perhaps in many other places. It is easily constructed, materials light and cheap, and can be made in the shop, in sections of eight or ten feet, and be a portable fence. There are no joints to retain water; the woody portions stand erect, and are only worn out by the action of rain, &c. The winds may blow and the floods come, it is neither blown down or washed away, and is formidable enough to restrain unruly horses and cattle. Charles Colby. *Meriden, N. H.*

Premium List U. S. Ag. Society.

The following premiums will be awarded at the Third National Exhibition by the U. S. Ag. Society, to be held in Boston Oct. 23—26.

For the best bull and four cows, from any one herd, $300—2d do. $100.

SHORT HORNS. *Bulls.* Three years old and upwards, 1st premium $100—2d, $50—3d, Diploma. Two years old, 1st, $50—2d, $25. One year old, 1st, $25—2d, $10. *Cows and heifers*, same premiums as for bulls.

DEVONS, AYRSHIRES, HEREFORDS, and JERSEYS; same as Shorthorns.

GRADE COWS. Same as Shorthorn bulls. NATIVE COWS the same.

MILCH COWS. Five years old and over, four premiums—$100, 75, 50, and 25. Three years old and under five: four premiums. $75, 50, 25, 15.

WORKING OXEN. Four years old and upwards, 1st, $100, 2d, $50—3d $25. STEERS. Two years old and under four, 1st. $50—2d, $25—3d, $15.

FAT CATTLE. Fat Bullock, 1st, $75—2d, $50—3d, $25. Fat Cow, 1st, $50—2d, $25—3d, $15.

THOROUGHBRED STALLIONS AND MARES. Stallions, 4 years old and upwards—1st, $200—2d, $100—3d, $50—4th, Diploma. Mares, 4 years old and upwards—1st, $150—2d, $100—3d, $50—4th, Diploma.

STALLIONS OF ALL WORK—4 years old and upwards—four premiums, $200, $100, $50, and diploma. Three years old and under four, 4 premiums—$150, $75, $50, and diploma. Two years old and under three—4 premiums, $50, $25, $15 and diploma. One year old and under two—3 premiums, $30, $20 and diploma.

BREEDING MARES AND FILLIES. Mares four years old and upwards, 4 premiums, $150, $100, $50, and diploma. Fillies, three year old, 3 premiums, $75, $50, and diploma. Fillies, two years old, 3 premiums, $50 $20, and diploma. Fillies, one year old and under two, 3 premiums, $30, $20 and diploma.

MATCHED HORSES—4 premiums, $100, $75, $50, $25.

FANCY MATCHED HORSES—3 premiums, $75, $50 and diploma.

PONIES—Matched, $25. Single $20.

FAMILY HORSES—4 premiums,—$100, $75, $50 and $25.

DRAFT HORSES. Matched, 3 premiums—$100, $50 and $25—Single, 3 premiums, $50, $25 and diploma.

LONG WOOLED SHEEP. Bucks, two years old and over, 3 premiums, $25, $15 and diploma. Under two years, 3 premiums, $20, $10, and diploma. Ewes—Not less than five in number—same premiums as for bucks. MIDDLE WOOLS, MERINOS AND SAXONS: same premiums as for Long Wools.

SUFFOLK SWINE. Boars, two years old and upwards, 3 premiums, $25, $15, and diploma. One year old and upwards—3 premiums, $20, $10, and diploma. Sows, same premiums as for boars. ESSEX, and "OTHER BREEDS," same premiums as for Suffolks.

PIGS. Not less than six in a litter—ten months old and under, 2 premiums, $15, and $10.

One thousand dollars have been set apart for discretionary premiums.

There will be trials of trotting horses on Tuesday and Wednesday, of horses that have never trotted for money; 1st premium, $200—2d, $100. On Friday there will be: "A grand trial of speed, free for all trotting horses and all drivers," 1st premium, $300—2d, $100.

ENTRANCE FEES.

The Entrance Fees for Stock, (except trotting Horses,) will be:

For competition for premiums of	$200, and over,	$10.00
" " "	$100, and under 200,	5.00
" " "	under $100,	3.00
Trotting Horses, competing for premiums of	$200,	20.00
" " " "	$300,	30.00

Trial of Reapers in France.

At the trial of agricultural implements which took place at La Trappes, on the farm of Mr. DAILLY, Postmaster General of France, American Reaping and Thrashing machines came off victorious, in competition with the world. Prince Napoleon, M. Drouyn de l'Huys, Gen. Morin, M. Emile de Girardin, and other distinguished men from different countries were present. Among them were nine Arab chiefs, "tall, fine looking men, who took much interest in the proceedings." Ex-President Fillmore, Gen. Tombs, several members of Congress, and other distinguished Americans were also present. There were seven reapers on the ground, three American, McCormick's Manny's and Hussey's, two English, and two French. The wheat was heavy and much laid. The machines all started together at the tap of the drum; McCormick's taking the lead, and keeping it to the end. It finished its portion in 10½ minutes; Manny's in 16 minutes and Hussey's in 18 minutes. Cournier's (French) machine came out next. The others varied from half an hour to an hour and a half.

There were four thrashing machines entered for competition, one American (Pitt's of Buffalo) one English, one Belgium and two French. They worked half an hour. Six men with flails were set to work at the moment the machines started. The following are the results of the trial:

Six thrashers with flails,.....60 litres of wheat.
Pitt's American Thrasher,.....740 litres of wheat.
Clayton's English Thrasher,....410 litres of wheat.
Dunoir's French Thrasher, ... .250 litres of wheat.
Pinet's Belgian Thrasher,.....150 litres of wheat.

In regard to Pitt's machine, the *Moniteur* says:

"Pitt's machine has therefore gained the honors of the day. This machine literally devours the sheaves of wheat; the eye cannot follow the work which is effected between the entrance of the sheaves and the end of the operation. It is one of the greatest results which it is possible to obtain. The impression which this spectacle produced upon the Arab Chiefs was profound."

Daisies.

Predjudices rise up in our minds and obscure our views of things like insurmountable precipices. A want of observation perpetuates them. For want of attention it appears to me that an unjust predjudice has arisen against daisies. The daisy is a very hardy plant; stands the drouth better than most grasses; is highly aromatic, mucillaginous, and pleasant tasted herb, and very nutritious. On the sandy lands about Cape Cod, where grasses are raised with difficulty, daisy seed is sown by some farmers, and the hay made from it is considered to be worth thirty three per cent more than that made from timothy or clover. The hay made from it is highly relished by horses, cattle and sheep. The only objection against them, seems to be, that though horses and cattle are fond of them when made into hay, they will not eat them when green. But as there is no herb which can be placed before sheep of which they are more fond than of the daisy, their great regard for this plant can be made use of as a means of destroying them. A few years

since, I pastured a field, which was well seeded with daisies, very closely with sheep early in spring—in May I turned it over with the plow and put on a crop of oats, turning under the daisies, and letting them stay underneath. Thus I unintentionally destroyed nearly all of them. There is one other mode of destroying them. Make the land so rich with manure, that if it be a meadow, it will produce a large crop of grass, and the grass will choke out the daisies.

Having long cultivated daisies I am entirely indifferent about getting rid of them. Wherever the land is rich enough to bear a good crop of grass the grass will grow in spite of them. Wherever the land is poor or out of heart, the daisy takes its place and forms a substitute which is highly useful as pasture for sheep or as hay for them, or other animals. They come into bloom about the same time as clover, and should be cut before the blossom falls. They do not flourish on wet soils; but on poor dry, hilly, or mountainous lands and on poor sandy plains like those of eastern Maryland or Virginia, they may be raised to great advantage for sheep pasturage where ordinary grasses cannot be produced. H. J. Canfield. *Mahoning Co.*

Stationary and Movable Horse Powers.

Messrs. Editors—Having it in contemplation to build a barn the coming season, I wish to be informed whether a stationary horse power, fixed in the basement story, would not be cheaper and better than any of the movable powers now in use. The plan on which I propose to build is, with a little variation, the one described by Robert Sinclair in vol. 6 of the Cultivator (1839,) page 148. Sufficient room may be conveniently arranged in the basement for the power and horse-path, and the question with me is whether it is best to prepare it for that purpose? I have been told, but know not with how much truth, that many of the farmers in the middle states, who have heretofore had stationary powers erected, have thrown them by as useless, and procured some of the movable kinds, finding them far superior to the old ones. *If such be the fact*, would it be profitable to provide room in the basement for a movable power? And if so,—how large a space? And whose plan of a power is best, where ample room can be had? Until recently I had always heard stationary powers spoken of as the cheapest, most simple, least liable to get out of repair, and on the whole much the best.

I would like to get the views of any of your subscribers who have had experience in these matters, and they are many. I therefore beg leave that their views and the facts and observations resulting from their experience herein, be made known through your papers as soon as convenience will permit, not doubting that the evidence thus brought out will have a tendency to settle the question, and that others may be benefitted thereby as well as myself.

One other topic I wish to mention. There is no ground alum salt, such as is put up for salting butter, brought to this market. It has not been in Chicago this season. Our dealers have repeatedly inquired for it. Where is a good article of the kind to be had? Cyrus Bryant. *Princeton, Ill., Aug. 27*

To Renovate Worn-out Meadows.

Answer to G. A. H., Potsdam, St. Lawrence Co., N. Y. Plow by all means; and if the land is not underdrained, plow in lands 30 to 40 feet wide, so that the dead-furrow, when cleared out, will be a ditch for the discharge of surplus water. Land that is low and wet, must be plowed in a dry time. I use for plowing, where the sward is tough, with brakes, bogs, and wild grass, a plow that cuts sixteen inches wide and ten to fourteen deep, with wheel and coulter, drawn by four stout oxen; the furrow turned flat and shut in; then roll with a heavy roller, and harrow well lengthwise; manure with rotten and compost manure, fifteen to thirty loads to the acre; seed with herds grass and northern red-top, with a little sprinkle of clover.

Let the land be fitted in the fall, have the benefit of the winter frosts, and sow the seed any time in May; harrow and roll, and in three months you may often cut three tons, tender, first quality hay to the acre. When the grass has run out, as it will in four to seven years, plow again, and go through with the same course. Soils with a tender turf, may be plowed with a common two-horse plow, 11 to 12 inch furrow, and as shallow as 4 or 5 inches, treated in the same way, with good results.

To Kill White Daisy.—Be sure that none ripens its seed. The roots may be killed by thorough plowing, or by thorough cultivation with a hoed crop.

Many years ago, I tried harrowing and re-seeding old meadows, with a poor result. H. W. L. *Rutland, Vt.*

Curing Corn for Fodder.

I see in the last Country Gent., an inquiry about securing broadcast corn for winter. I have tried many ways, but have only succeeded well with all my crop thus: I set crotches in the ground, 12 or 15 feet apart, laying a pole in the crotches, say 7 to 8 feet above the ground. Commence at one end, laying rails or poles, 1½ feet apart, about 10 or 11 feet long, on each side, one end on the pole, the other on the ground, similar to the rafters for a tolerably flat roof—lay a few stalks crossways of the poles or rails, to prevent the fodder from falling through—then commence standing the longest or straightest stalks, but down, on the ground—put a course the length of the fodder house or stack, on both sides—the next course buts up, and so on until the stack is finished, covering the top with coarse hay or long straw. It may be put on one foot thick, and covered again in the same way another foot thick, if desired, after standing a week or two in dry weather, leaving the frame open at both ends. I cut with a short cradle, when the corn is not very tall and stands up well, or with grass knives when down or stout, leaving it lying on the ground three or four days, before taking it up. When well put up, it is sure to keep well. At the commencement of winter, the north end may be closed up if desired, and filled inside. Lewis Bailey. *Fairfax Co., Va.*

Inquiries and Answers.

LAYING DRAIN TILES.—*S. F. D., Bath, Me.* It imposible to give any general "directions for laying tiles," that are applicable to all cases. With horse-shoe tiles, on soft, mucky soil, or when the drains run through a quick sand, it is necessary to lay them with great care, on sole made for the purpose, or on pieces of broken tiles; being very careful to have the fall constant, so that there shall be no chance for a deposit of sand, as would be the case if the flow of water was at all checked. If pipes or sole-tiles are used, all that that is necessary is to see that the bottom of the drain has a level descent, if we may use such an expression, and to carefully put the ends of the tiles together, so that there shall not be too great a space between. The tiles are sometimes covered with an inverted sod, if convenient; if not, they can be covered with the clay and soil thrown out of the drain. No fears need be entertained that the water cannot get into the drains A little practice will soon dispel this foolish notion.

FARM BUILDINGS.—Can you give in your paper some plans for buildings for a stock and dairy farm? G. H. W. *Clarksville, Geo.*

We are now getting out our Illustrated Annual Register of Rural Affairs for 1856, which will contain seven Designs for Farm Houses—Five Designs for Barns—Two for Carriage Houses, and a great variety of other structures. It will be issued about the first of October—price 25 cents—sent by mail post-paid.

OSAGE PLANTS FOR BEARING.—I have a fine lot of Osage Orange plants growing, and wish to be informed at what age those left unpruned will blossom and bear seed.

LIME ON A CLAY SOIL.—Also, which is the preferable way to apply lime to heavy clay soil lacking that element; sown broad-cast and plowed in or applied as a top dressing? Should it be plowed under in the autumn with a good coat of stable manure, or applied in the spring? What is the number of bushels to each acre required upon such soil, having never been cultivated, to fit it for kitchen and fruit gardening purposes. W. C. HEALY. *Elk Co., Pa.*

The Osage Orange requires several years (varying with circumstances, not always to be controlled,) to come into bearing. It will bear fruit in the northern states, but our impression is that the seed will only ripen well at the south. Can any of our correspondents inform us definitely on this point?

Spread the lime broad-cast, in the fall, and plow it in three or four inches deep; it is not advisable to bury it too deeply, as lime naturally descends in the soil. We have seen excellent results when spread on a plowed field and worked into the soil with a cultivator.

INDIAN CORN FOR BREAD, &c.—Will you please to inform me what is the best variety of Indian corn for bread, and where the seed can be procured. I think the southern corn, which is altogether raised here, is very inferior to what I have seen and eat in the eastern states.. Also where can I get a periodical publication on rural architecture; drafts in full, and in detail; also, exclusively devoted to modern building. I am a house builder and have plenty of works of ancient architecture; I also have A. J. DOWNING and some others, but I want one more in detail. G. L. S. *Galesburg, Ill.*

We do not know of any periodical that would come up to your requirements. You might get some hints from Wheeler's Homes for the People. Will some of our correspondents answer the corn inquiry.

HARVESTING CORN FOR FODDER.—I have got an excellent field of corn sown thick in rows for the use of my cattle in summer, but not wanting it I have concluded to make it into fodder, as the rain has materially damaged my hay and straw on which I usually depend to winter my stock. I have never cured any, and should be glad to hear from any of your readers who have had experience with it, when is the best time to cut it, the best method of curing it, stacking, &c. Some I have talked to about it say it should be cut when quite green before the ears are formed, while others say it is better to let it get nearly ripe. BARGHTON.

HAY MAKING MACHINE.—On page 104, of the Transactions of N. Y. Ag. Society for 1855, I find a drawing of a hay-making machine used in England. I wish to inquire through your paper, if this machine, or a similar one, is used in this country, and if so where to be obtained. A. W. MORSE. *Eaton, N. Y.*

We believe there is no machine of this kind made in this country. It is simply a machine for "tedding" or shaking out the hay from the swath. It is not used for shaking out clover, timothy, rye-grass, &c., but only for the "English meadow hay." It is an expensive machine, and we question if it would be of any great advantage in this country. We seldom keep our had spread out more than a few hours, whereas the English are obliged to keep it spread several days, *turning* it, &c., frequently. Under such circumstances, the "tedding machine" saves much labor. Where a mowing machine is used, and the grass is already spread out on the ground, this machine would be of no use with us.

THE CHESTNUT.—Can you inform me if the Chestnut is as quick a growing tree as the Locust, and if it would be suitable to make a screen or belt 30 or 40 ft. thick; and how close they ought to be put for that purpose? W. E. WOODWARD. *Kickapoo, Ill.*

The chestnut and locust are both good growers, but we cannot state from observation the precise relative rate of growth. The chestnut would make a good belt—and as it is difficult to transplant, the seeds should be planted where the trees are to remain. Care should be taken that they are kept moist from the moment they are taken from the tree—if the outside shell become dry, they are of difficult vegetation. Mixed with leaf mould or sand, they will keep well till planted, which may be in the fall, or very early in spring. Plant in hills like corn, about 6 or 8 feet apart, and afterwards thin out to one.

HAY PRESSES.—*Many Subscribers, Pittsburgh, Pa.* Messrs. DEERING & DICKSON of this city, manufacture hay presses, both portable and stationary, which we think cannot fail to suit you. For descriptions of them—their weight, price, &c., see Co. Gent., vol. 4, p. 167, and vol. 6, p. 107. JAMES WARDROP of your city, is agent for the sale of these presses, through whom we presume you can order them.

STRAWBERRIES—*J. F., Quebec.* The Early Scarlet, Hovey's Seedling and Burr's New Pime, we would recommend for your purpose. They can be had at all the Nurseries, at about $1.50 for 100 plants.

POULTRY HOUSE.—I have a building 30 by 40—16 feet posts—which I intend to arrange for a troop of the feathered tribe. Will you or some of your practical correspondents, give me a plan for constructing this building so as to accommodate the greatest number of fowls, with such other improvements as they may have. J. C. P. *Le Roy, N. Y.*

CORN PLANTERS, MILLS, &c.—Can you recommend any of the corn planters to me as answering the purposes, for which they were intended, saving labor, and not easily put out of repair, and to be used on rather rough ground. And will any of the corn and cob mills, grind as well as stones? Will they make a good Hominy and corn meal. Perhaps some of your subscribers might inform me. An answer will oblige, J. M. E. V. *Meadow Bluff, Greenbrier Co. Va.*

MEASUREMENT OF HAY IN BULK.—*John Campbell Jr. Monroe N. Y.* The following receipt for ascertaining the weight of hay in a stack or barn has been going the rounds of the papers for some time.

Multiply the length, breadth, and height of all the

hay into each other, and if the hay is somewhat settled, ten solid yards will weigh a ton. Clover will take 11 to 12 yards to a ton.

It is difficult to give a rule that is adapted to all kinds of hay, different modes of stacking &c. but we are inclined to think the above estimate too low.

Twelve cubic yards of Timothy and red-top hay would probably be nearer an average. We shall be obliged, to any of our readers for information on this point.

Bloody Murrain.—One of our Ohio subscribert wishes a cure for this disease. Will some of our experienced correspondents give him one.

Best Cows for the Dairy.

Eds. Country Gentleman—In last no. D. W. of Lewis County, among other things, asks which you consider the most profitable for the dairy, young, old, or middle aged cows—also the most profitable breeds

In answer to the above you say, the *younger* the cow the *richer* the milk, but less in quantity. I would like to see the *data* upon which the above opinion is founded.

It may be and doubtless is true that a cow three years old, will give less milk than she will at a later period of life; but if it is *richer* or better in quality, then my experience in the management of cows, milk, and butter, is an exception to the general rule, for I had supposed that exactly the reverse of the proposition was true—namely, that a cow will not make as much butter or cheese from the *same* quantity of milk at 3 or 4 years old, (all other things being equal,) as she will at 6 or 8 years old. Now for the *fact*:—In the summer of 1851, I had a heifer, 2 years old, that gave 22 lbs. of milk per day, which produced 12 ounces of butter. The same cow, 3 years after, gave 48 lbs. of milk per day, which produced 31 ounces of butter, thus showing what I supposed was a conceded fact, that the milk of a *young* cow was *not* as *rich* as in after life. If I am in error in this position, I hope that some of the *Lewis County* dairymen, (than whom you say there are none better in the world,) will set me right.

In the same article you say that you are not aware that any effort has been made to procure a breed of cows *peculiarly* adapted to dairy districts, which may be and doubtless is true, so far as regards importers or professional breeders; but that there has been a very great improvement in milch cows within the last 10 years, by selecting our best native milkers, and by crossing with other approved breeds, is a fact so well established, that it cannot be successfully contradicted. In my own neighborhood, there certainly has been a very great improvement made in the milking qualities of cows, dairies producing from one-third to one-half more than they did 10 years since, and this I believe to be so generally throughout the state.

There are other things in the same article that are new to me and will receive some attention hereafter. Ontario.

Our remarks were designed to call out the experience of our correspondents on these points. We thank "Ontario" for his letter, and hope to hear from him frequently on all agricultural matters in which we know him to have large experience. The expression, "the younger the cow the richer the milk," is too indefinite and probably not correct. No doubt, as our correspondent says, the milk of a *two-year old heifer*, is not as rich as that of a five-year old cow. We did not intend to be understood as saying it would be richer. We distinctly stated that a cow was in her prime when five or six years of age, and the fair inference from our language is that *after this age*, the "younger the cow the richer the milk." We also said that after "her eighth or ninth year, the milk deteriorates in quality." If our correspondent "would like to see the data upon which *this* opinion is founded," we will endeavor to furnish it.

We quite agree with our correspondent that there has been a great improvement in the breed of cows for milking purposes during the last ten years, but still we have no *breed* of cattle peculiarly adapted for the dairy districts of our country. If there is such a breed in Ontario county, we have yet to see it. The method by which our correspondent says the improvement was brought about, is precisely the one we recommended our Lewis County friend to pursue—*select* the best milkers from "what is called our native breed," and breed from it in special reference to the dairy, by crossing with Ayrshire and other improved breeds that have fixity of character—a quality which our "native breed" does not possess.

Sprouted Wheat Good for Seed.

A correspondent of the *Rural New-Yorker*, W. Garbut, Wheatland, N. Y. states that sprouted wheat is about as good for seed as that which is uninjured by wet weather. This will be good news to many of our readers. Mr. G. is a careful and reliable man and the statement may be acted on with confidence. He says:

The excessive wet weather in harvest sprouted so much of the wheat in this section, that many of the farmers are very anxious to procure sound wheat for seed. I can assure them that they need not be solicitous on that account, for wheat that has been sprouted will germinate as freely a second time as it did the first, and with equal vigor. To test the fact, on the 17th of this month I took some of the worst sprouted wheat that I had; every kernel of it had grown, and it was so thoroughly dry that the sprouts all rubbed off. I put it into rich soil of suitable moisture. On the fifth day much of it made its appearance, and now, on the eighth day, many of the spears are three inches long, and as strong and as vigorous as I ever saw young shoots of wheat Every kernel of it has grown.

Inquiries about Keeping Poultry.

There are many persons living in towns and villages who, like myself, wish to keep a dozen or so of fowls *principally* for the purpose of furnishing their families with fresh eggs. While the "hen fever" raged, we were utterly at a loss to decide on the merits of the several breeds, so many were the varieties and so loudly were their good qualities proclaimed by the respective venders. Now that this epidemic has subsided, perhaps you will be willing to give your *opinion* as to the best breed for the purpose above named, with reference *also* to their value for the table, their hardiness &c. &c

D. *Adrian, Mich.*

Brookside and the Cascade Barn.

About two years since, DAVID LEAVITT, Esq., late President of the American Exchange Bank, New-York, purchased for his son, who had a taste for rural pursuits and had studied the science and practice of agriculture at the "Mount Airy Agricultural Institute," a beautiful farm of 300 acres, situated about one mile south of the delightful village of Great Barrington, Mass. With the assistance of Prof. WILKINSON, late Principal of the Institution at Mount Airy, Mr. LEAVITT commenced a series of improvements which, for the labor and expense attending them, are probably unequalled in the annals of American agriculture. The situation of the farm commands not only varied and picturesque scenery, but is admirably adapted for that system of improvements which its proprietor is so energetically and bountifully executing. Its outline is nearly quadrangular. On the west, for nearly a mile, the Housatonic meanders through its crooked path, annually overflowing the rich deltal meadows on each side, and forming a landscape, interspersed with graceful willows and other trees, on which the eye delights to rest. On the southeast of these meadows, a natural curvilinear terrace, some 15 yards in height, bounds on the north and west about 50 acres of fine table land. On a slightly elevated point of this table land, Mr. LEAVITT has erected an elegant country seat, facing the river. On the southeast the farm is bounded by a high mountain, from which two streams run through a portion of the farm, forming a junction in a deep ravine a short distance from the house. A few rods below this junction a dam is thrown across the ravine, and the arrested waters form a large and beautiful pond, if we recollect rightly about 20 feet deep.

The barn is built in the ravine. In fact one of its sides forms the dam to which we have alluded. It is a gigantic building, spanning the ravine, 200 feet from side to side, and 40 feet wide. The center of the barn is a *square;* on each side, two wings with *arched* roofs, covered with tin, extend to the ravine on either side. The roof of the square center is flat, and forms the base of a cupola 20 feet square, and about 18 feet high. From this cupola rises a wooden spire, of about 30 feet elevation, terminating in an iron rod 12 or 15 feet in height, on which is a ball some 3 feet in diameter, and a full sized plow for a weather cock or vane. The extremity of this rod branches into four forks tipped with silver, and lightning conductors branch from it in every direction over the building.

From the peculiar situation of the barn, and by a great expenditure of labor and money in grading, easy drives are obtained into each story and basement of the building. The upper story is on a level with the surrounding table land, and there is a magnificent driveway the entire length of the building, 200 feet. On each side this driveway, there are bays for the storage of hay, a carriage house, implement room, and convenient apartments for the bailiff and farm laborers, coachmen, &c. Above this, in the center building, there are a granery, pigeon house, and rooms for the storage of cut fodder, and straw for litter. We should have said that the water of the brook by being dammed up furnishes a constant power, and is used for driving the machinery of the building. In the upper story, over the driveway, a shaft, with pullies, runs the entire length of the building; and by it, and an ingenious contrivance, the hay is taken from the waggons, a load at a time, and deposited in the bays alongside. In this way a ton of hay can be unloaded each minute!

Descending to the next story we find another splendid driveway 160 feet in length, and on each side stables and stalls for horses, cattle, &c. We could not help but admire the neatness, cleanliness and perfect order and system which pervaded this, and indeed every other part of the establishment. By means of lead pipes, and conveniently situated stop cocks, there is an abundant supply of hot and cold water, for all purposes. The mangers for cows and horses are of iron, fixed on a swivel, so that they can be easily turned into the driveway, or feeding room, away from the animals. This is very convenient, and might be generally adopted with advantage. The piggeries are on this floor, and are well arranged. In the pens for breeding sows, a framework of slats about a foot high is placed all around the inside of the pen, a foot or so from the outside boards. This is to prevent the sows, in lying down, from crushing the little pigs against the outside of the pen; the frame work leaving a space into which they can escape, between the slats and be safe. Mr. WILKINSON thinks this arrangement has saved him many hundreds of dollars. The dairy is on a level with this floor. It is an arched room or cellar, 80 feet in length extending into the bank of the river, under the driveway by which teams enter the third story above. The floor and roof, which is of stone, are cemented, and means are taken to secure good ventilation, though, judging from our olfactory nerves, which are pretty accurate, the air is somewhat tainted with the gases from the stables situated on the same floor, and from the manure cellar below. At the end of the milk room there is a large and convenient ice house. The whole length of this floor, including ice house, dairy and stables, is 278 feet!

The basement, 160 feet long and 140 feet wide, is used as a manure cellar, and has an easy driveway to all parts of it. The arrangement for cleaning the stable is most complete. The trap doors are placed on a slide, and by means of a lever at one end of the stable they can be all opened and shut at once in a moment. All the straw for litter is cut, and this, too, greatly facilitates the cleaning of the stables.

The grain is threshed as it is drawn in from the field. The machine threshes out the grain, separates it from the straw and chaff, and carries it, already cleaned for market or use, into the granary in the upper story; it cuts the straw up fine for fodder or for litter, and conveys it up to the store room above. The grain or cut straw, by means of well arranged tunnels, can be shot into any part of the feeding rooms below. The root cellar is in the eastern division of the second story, and there is an apparatus, for sorting and cleaning the roots

by means of large riddles or wire sieves, as they are stored away, which we had not time to examine. There are also machines for sawing lumber of all kinds, and one of Woodworth's largest and best Plainng and Matching Machines! The sawdust from these machines falls into a room below designed for its reception. It is used for litter.

The manure is regularly dusted over with charcoal and sulphate of lime in order to prevent the escape of ammonia. The advantage of cutting the straw for litter is most manifest in filling, hauling and spreading the manure. It is all drawn out and spread upon the land *in the winter*. The conveniences of this method are quite sufficient to counterbalance any ordinary loss from leaching, evaporation, &c.

It is said that this barn has cost Mr. LEAVITT some *fifty thousand dollars!* Its fame has gone out through the length and breadth of the land, and our readers will ask: "What did you think of it?" Well, we expected something grand, and imposing; but in this respect we were disappointed. It is usually considered an American characteristic to make a great show with a little money, but this is certainly not the case at Brookside. No one standing by Mr. LEAVITT'S elegant new house, and looking towards the entrance into the upper story of the barn, would dream that there was so much money buried there. Seen from behind, the proportions of the edifice are correct, and the effect exceedingly pleasing, but from the house, it is very different. The *arched* wings and *square* cupola are rather incongruous, and the spire and plow on the top appear disproportionate, when standing nearly on a level with them. On entering the barn we were again disappointed, but this time agreeably so. We had expected to see evidence of a useless expenditure of money, but found nothing extravagant or inconsistent with the general design of the building, and with the object of its wealthy and public-spirited proprietor. On the contrary there are many things in it that might be advantageously adopted in the construction of barns generally; and, on the other hand, while there is much that cannot be economically carried out in common practice, yet the principles embodided are of universal applicability. We would recommend all who contemplate building to pay a visit to Brookside, feeling sure that they will be amply rewarded. They will find many things of much interest to which our space does not permit us to allude.

TIMOTHY.—Have you not, Messrs. Editors, inquired oftener than you can tell, the origin of the name of the grass called Timothy? I have. Have you not yet oftener heard the question asked without any answer being given? I found the following in a little beautiful, interesting and useful book entitled The Green Fields and their Grasses, by Anne Pratt, London.

"There are several species, two of the cats-tail grass. One only is very common, but that one is to be found in every meadow. It is the common cats-tail or Timothy grass, (*Phleum pratense.*) This latter name it received from Timothy Hanson, who introduced it from New-York and Carolina, about the year 1780." A SUBSCRIBER.

Dorkings—Spanish—Feeding Boxes.

The Dorkings are among the best breeders and nurses for chickens of any variety we ever saw, the old Game fowls not excepted. They are also good layers, and they will dig over as much garden in a day as any other fowl, which fact goes to show that they will "scratch" for a living. They are mild, gentle and peaceable; the cocks are not pugnacious, but will fight against strange birds to desperation. They are also among the best fleshed fowls for the table. The Spanish fowls, on the other hand, are rather shy in disposition, but remarkably good layers; will probably lay more eggs in a year than the Dorkings, from the fact that they seldom sit. For the table their flesh is about medium in quality; as to size, ordinary, like the Dorkings, but large enough for all useful purposes. As to "garden diggers," they are about equal to the Dorkings and commmon farm fowls. As to laying eggs every day in the year, that is out of the question with any variety. Of course the "non-sitting" fowls will lay more eggs in a year than the sitting fowls. But as a general thing, the number of eggs depends more on the care and keeping of the fowls through the year, than on the variety. This is our experience so far. As to food, in this country, the best and most natural food is Indian corn. This fact to our mind is clear enough. When you throw out a half dozen different kinds of grain together, every kernel of corn will be picked up before any other grain. But a more economical food will be found in mixing grain together, say of corn, oats, rye and buckwheat, with wheat screenings and other grains for a variety.

The most common and wasteful practice to feed fowls, is to throw the grain on the ground. In case of Indian corn, it will be mostly picked up, but much of the smaller grain will be wasted. The right way is to feed them in "self-feeding boxes," where they can go and help themselves when they choose. In this way they will eat less food than when thrown out by the handful. These boxes are made in different ways We have two made like a table standing on legs, about twenty inches or two feet in length. This platform or table may be made of common boards, say four feet square, or four by five feet. On the center of this table place a stationary box which will hold twelve or fifteen quarts of grain. On this box, or outside of it, put an upright piece of lattice-work of half-inch stuff, and the slats say two inches wide. These can run up say twenty inches high, and on the top a cap roof can be put to shield the grain from the weather. The slats may be about two inches apart, and the box made from fifteen to twenty inches square. The fowls will come up on all sides of the table, put their heads through the slats, and feed on the grain in the box. A movable slat should be made to slide up and out, to put the grain in. A box of this size will feed from twenty to twenty-five fowls at a time. If rats or other vermin should trouble by getting into the box, this table may be suspended by wire from the rafters of the shed or poultry house. By throwing a few handfuls of grain on the table, the fowls soon learn to fly up, and then help themselves from the feeding box. LEVI DURAND. *Derby, Conn.*

Manufacture of Ta-feu.

We publish the annexed letter in explanation of a paragraph which recently appeared in this paper, with pleasure. Knowing as we did, the reputation of the gentlemen connected with the "Lodi manufacturing Co." who have been for many years engaged in the preparation of night soil for use as a fertilizer, we did not draw the inference from Mr. Johnston's remark, that there had been any intentional wrong, but only inferred that sufficient care had not been given to the preparation of the article; and we are glad to learn that even this inference was erroneous. While we shall fearlessly expose every attempt, which comes to our knowledge, to defraud our readers, we should sincerely regret to be instrumental in exciting an unjust suspicion against any one who is earnestly and honestly laboring, as we believe Mr. DEY to be, for their benefit. EDS.

After all, my Ta-feu has improved the growth of the wheat, but in pulverizing it to sow with Seymour's Grain and Grass seed Sower, and on sifting the Ta feu, I *got ten bushels of worthless refuse*, such as shavings, pieces of boards, old and new nails, and in fact almost everything but what should have been. This goes to show that we farmers are cheated in other manures besides "Chilian guano" from the New Jersey Manufactory. I don't doubt at all but Ta-feu, if genuine, is a cheap manure for wheat, at $20 per ton, the price I paid at New York; but it wlll not do to pay so much for such as I got, and pay carriage too. JOHN JOHNSTON.

MESSRS. EDITORS--The above, cut from the Co. Gent. of July 26, was brought to my notice a day or two ago, and no one was more surprised than myself to find that in a ton of Ta-feu, which we sold Mr. JOHN JOHNSTON, were "10 bushels of worthless refuse, such as shavings, pieces of boards, old and new nails," &c., and after turning over the matter in my mind more maturely, I have still to express my unqualified astonishment at it. As the publication of such a fact, accompanied by the remark that, "farmers are cheated in others manures besides Chilian Guano from the New Jersey manufactory," might injure us in some degree, we ask merely to explain how 10 bushels of what some might call refuse, could be got out of a ton of Ta-feu, stating also the fact, which you, Messrs. Editors, know very well, that the Lodi Man. Co. never made any Chilian Guano.*

The night soil, taken from the city of New-York, is filled with rubbish of every conceivable natnre—for instance dead cats and dogs, straw beds, feather beds, old carpets, sheets, stove pipes, crockery ware, boots, shoes, watches, chains, gold, silver and copper coins, brooms, shavings, and (during the past 6 months only) over 10,000 whole brick, let alone brick bats, stones, coal and coal ashes. I venture to assert that the pile of accumulated rubbish for the last 6 months, will weigh 500 tons. The night soil is brought to us in vessels of about 70 tons each, and is unloaded on to an inch screen, which takes from it the bricks and large rubbish. It is then put upon drying floors, disinfected and dried; and as it is turned over by the men, they throw out all extraneous matter that can be picked out by hand. If it is to be manufactured into Poudrette it is taken into a house where it is allowed to undergo a partial decomposition, and again screened through a cross-barred half inch screen, and then barreled. If Ta-feu is to be manufactured, it is dried *perfectly* dry, and when in that state becomes cakey and hard, and is brought into the house, and without fermentation, is screened first through a half inch screen, and then again through a quarter inch screen. Now the shavings and other refuse, Mr. Johnston speaks of, must have been extracted by bolting through a hair or other fine sieve, and consisted, without doubt, of little lumps of night soil, mixed with hair, straw, and some plaster saturated with night soil. As to the old and new nails, it is only necessary to remark that old nails are worth $40 a ton, and new nails 3½ to 5 cents per pound, and could only have got there by accident. We were filling and coopering barrels at the same time that we put up the Ta-feu for Mr. Johnston, and a nail might have flown from under a blow of a cooper's adze into a heap of Ta-feu. As to the "pieces of boards," I cannot account for them; we do not keep a lumber yard—but possibly in shoveling the Ta-feu into the bags, a *splinter* from the floor might have got into it.

In conclusion I would state, that in the process of manufacturing the Ta-feu—the night soil was saturated with a solution of nitrate of ammonia; and every shaving, bit of rag, or straw, or other organic matter that was extracted by Mr. Johnston's sieve and thrown away by him as worthless, was filled with ammonia, and worth at least $30 a ton. The word "cheat," Messrs. Editors, is a hard word to use, and strikes deep, and should be used with discretion, and upon strong foundations only. We do not think the occasion one which renders it necessary to append affidavits, or make any great fuss, but for the present content ourselves with the simple denial of the implied fraud—or cheat—and hope that the above explanation will satisfy any candid mind, and close by asserting that we sent Mr. Johnston a bona fide article, and one which we are willing to put to any fair test, alongside of guano, or superphosphate of lime, or any other manure. For The Lodi Manufacturing Co. JAMES R. DEY.

P. S. Mr. Johnston states himself that it improved the growth of his wheat. Now suppose he had used what he threw away, being ¼th of the whole quantity sent him—might it not have answered quite as well as the guano and at $30 per ton less price? We have raised the price $10 on a ton this season, for the reason that we put 25 per cent of No. 1 Peruvian Guano into the night soil, which adds just that much to its cost.

* Mr. Johnston, in speaking of Chilian guano from the New Jersey manufactory, had no reference, as our correspondent seems to suppose, to the "Lodi Mnnufacturing Co."

ASHES AND SALT FOR CORN.—A correspondent writes that a friend of his applied a mixture of unleached ashes and salt to corn, *and it killed the corn.* He applied the same mixture (with this difference the ashes were *leached*) to potatoes with good effect.

The Wire Worm.

Messrs. Editors—Much has been said and written for a few years past, of the origin of the wire worm—its habits, and the means to be used to prevent its depredations on the crops of the farmer. Of its origin, most farmers seem to be ignorant. The following extract, if correct, will give much light on the subject, and coming from the source it does, it would seem to be reliable. It is taken from the London Farmer's Magazine, and appears to be part of a lecture delivered in England by a scientific man, on the different insects in that country. He says:

The wire-worm, unlike the insects already described, does not confine its ravages to a single kind of crop; but almost every crop, either of the field or of the garden, may become its victim. It is a cylindrical worm, of a yellowish color, marked by very distinct rings, and covered with the larva of a beetle, called Elater. It lives for five years in the state of larva, becoming more and more destructive all that time, and then changes to an inactive pupa, from which the perfect beetle finally emerges. The perfect beetle or Elater is quite harmless.

Numerous remedies have been proposed against the wire-worm. The use of the roller is by some strongly recommended, also the folding of oxen and sheep in the infected fields. Several chemical applications have also been used, such as lime, soot and common salt. A curious discovery has been recently made on this subject, namely, that certain plants have the power of expelling the wire-worm. These plants are woad and white mustard; and it is found that if a crop of either of these plants be taken from a field infested with the wire-worm, this pest will be completely expelled, and the field may be sown with the ordinary crops the following year. Hand picking is an obvious and most useful mode, and the farmer should be warned to protect rooks, which, though they do a little harm in eating up some of his corn, or rooting out a potato or two, do infinitely more good in destroying wire-worms and other injurious insects.

A correspondent of the *Country Gentleman*, a few weeks since, stated that the wire-worm would not eat the crops of peas, beans, and buckwheat. Of the two former, I have had no experience; but of the latter, I have never had a crop injured, while other grain crops, subsequently sown on the same land, have been nearly destroyed. For several years past, I have raised turnips (the Globe turnip) as a field crop, and some years they have been raised on land largely infested with the wire-worm, yet I have never had a crop injured by them.

My experience in relation to the ravages of the wire-worm, does not accord with that stated in the extract previously quoted, as the same kind of crop raised on the same land, one year would be nearly destroyed, while another year it would be uninjured. Three years since, I planted a field with corn, and the wire-worm nearly destroyed the crop. The next year the same land was planted with corn again, and I had as fine a crop of corn as I ever raised. Last year the same land, with additional strips of land on each side was again planted with corn, and the wire-worm destroyed about one-half of the crop. This spring the field was sown with rye, and seeeded down with herds grass. A short time since I harvested the rye, which was a very fine crop. By the way, I have never known the grass crop injured, when the land was seeded down to grass with a grain crop sown in the spring, and I have frequently had portions of a field of grain, swept entirely clean of the grain, while the grass seemed to grow all the better for it.

The principal reason of my planting this field with corn for three successive years, was, for the purpose of trying the effect of different kinds of manures on the land, and also different preparations of the seed previous to planting it. I have used on this and other fields, both green and composted manures, from the horse and cow stable, the hog-pen and the hen-roost. The manure has been applied in various ways, yet so far, I have been unable to see that the kind of manure, or the manner in which it is applied to the land, has any effect to prevent the depredations of the wire-worm on the different crops raised. With the various preparations for the seed previous to planting, and also the application of various things to the land both before and after planting the seed, which I have seen recommended, I have had no better success; and I have come to the conclusion that it is useless to attempt to destroy, or to prevent the ravages of the wire-worm by any application to the land or to the crop; being satisfied that anything that would destroy them, would destroy the crop also.

I have noticed in this vicinity, that the wire-worm does not seem to work on the grain crop after the season is so far advanced that the ground becomes thoroughly warmed and the crops begin to grow vigorously, which, here, is from the first to the middle of June. This year, having had a field of corn nearly destroyed by the wire-worm, before it was large enough to hoe, I concluded to try the experiment of sowing barley on the field. On the thirteenth day of June, I worked the land over with a cultivator, for the purpose of pulling up what few hills of corn remained in the field, and to incorporate the manure with the soil. The next day the field was sown with barley. Thus far there has been no indications of the crop being injured, and the prospect now is that I shall have a heavy crop of barley on the field.

These observations are given to the public with the wish that farmers in every section of country infested with the wire-worm, will continue to try by well conducted experiments, to discover if possible, how the ravages of this insect may be prevented Those who do so shall be voted public benefactors. C. T. Alvord.

Wilmington, Vt., Aug., 1855.

Early Frosts in New England.—The *Boston Cultivator* says: There was frost in this vicinity on the mornings of the 28th, 29th and 31st of August. The greatest damage was probably done to the cranberry crop, which we hear is much injured. We have seen but little corn that is much affected by the frost, though the cold atmosphere, in connection with drouth, retards its growth. Late planted potatoes on cold ground, were generally killed. We hear that the corn and potato crops in Maine suffered severely.

Notes for the Month.

HALF AN HOUR IN A FRUIT GARDEN.—We have just spent half an hour in the fine garden of ELISHA DORR, Esq., of this city. Mr. D. is an enthusiastic horticulturist, and his grounds abound with the choicest varieties of fruits, especially of the plum. He has quite a number of excellent seedlings. Here is one, the *Henry Clay*, a large, beautiful and most delicious plum, now ripe. There is the *Wax Plum*. Last year, the tree, two years from bearing, bore half a bushel of fine fruit, and now it is loaded down. It ripens in October, when light-colored plums are gone. Here is the *Madison*, and the *Schuyler Gage*, both superior late varieties, very hardy and prolific. That tree loaded with such fine plums, is a *Coe's Golden Drop*, one of the finest of English plums. Mr. D. says it is very liable to crack in wet weather, and the curculio manifests a special regard for it. Many large bunches on the trees are rotting near the stem, where they have been stung. Here is a *Red Gage* very productive and decidedly accommodating, bearing this side one year and the other the next.

Mr. DORR'S garden is a stiff, hard clay, but by constant working, and digging in coal ashes, he succeeds in raising the finest of early vegetables. Here is as fine a plot of tomatoes as we ever saw, and there a beautiful lot of melons, the *Orange* and *Christina* among them.

Mr. D. has the largest and best *Bartlett* pears, on the pear stock, that we have seen this season. His clay soil suits them. All the trees have pieces of iron attached to the branches, from an idea that it keeps off the blight. The *Maria Louise* flourishes well on this soil, and is of excellent flavor. The *Van Mon's Leon le Clerc* cracks badly, both in wood and fruit. A number of seedling pears look very healthy.

Mr. D. has a fine lot of grapes. He manages to ripen the *Catawba* without difficulty. The vines are loaded, though some of them have "scalded" badly.

THE PRIMATE APPLE.—We are indebted to our friends, Messrs. W. T. and E. SMITH, Geneva, for a box containing very handsome specimens of this fruit. They say:—"We think them the most valuable of all our summer apples. They begin to ripen about wheat harvest, and continue until after this time."

SEEDLING PLUM.—Mr Dingwall of this city has shown us a seedling plum which promises well. It is in our opinion of superior flavor.

MILLER'S SEEDLING APPLE.—We have received from Mr. JAMES O. MILLER, Jr., Montgomery, Orange Co., specimens of a seedling apple, which received a prize at the last New-York State Fair, and was named "Miller's Seedling." Mr. M. says: "It is a good bearer every year, the apples being evenly distributed over the tree. The fruit is fit for use the middle of August, and ripens gradually until late in the fall, and may be kept until December." The specimens sent were of good size, quite ripe, juicy, sub-acid and of an agreeable flavor.

TESTIMONIAL TO MR LAWES.—We have previously mentioned that the friends of J. B. Lawes, Esq., had proposed to erect for him a laboratory, and in connection with that to present also an additional testimony of their approbation of the benefits he has conferred on the agricultural interest by his numerous experiments. The presentation took place with some ceremony on the 19th of July last, the Earl of Chichester presiding on the occasion. The testimonial was a silver candelabrum with appropriate ornaments, on which was the following inscription:—

"Presented to John Bennett Lawes, Esq., as an heir-loom, at the same time with a laboratory erected for him by public contribution on his estate, Rothamsted, Hertfordshire, in acknowledgement of the services he has rendered to the science and practice of agriculture, July 19, 1855."

We take the above from the *Boston Cultivator*. Mr. LAWES has devoted a large farm on his estate in Hertfordshire, England, to experimental purposes for a dozen years past. He erected on the farm, some years ago, a large laboratory for Dr. Gilbert, who is associated with him in these investigations, and also fitted up a large barn and other buildings with chemical apparatus. These for a time afforded ample accommodations, but the investigations have been yearly extending and specimens have accumulated so fast that it was found difficult to stow them away in safe and appropriate places. Mr. LAWES for sometime has intended building a new laboratory, and had the plans prepared, but as he expressed it in a letter to us, some time since, "he shrank from the expense." We cannot but rejoice that the friends of Mr. LAWES concluded to present so *useful*, as well as so magnificent a testimonial, and all will be glad to learn that Mr. LAWES has made such arrangements that, in case of his death, the laboratories, buildings, apparatus, and the experimental fields can be still used for the advancement of scientific agriculture.

HIGH FARMING.—In his recent lecture on the "General Condition of British Agriculture," Mr. MECHI stated that Mr. HUDSON of Castleacre, "one of the late Lord Leicester's best tenants," has used on his farm £50,000, say a quarter of a million of dollars, worth of oilcake, and £25,000 worth of artificial manures. We are acquainted with this farm and its management. The oilcake is used in fattening cattle and sheep in conjunction with turnips; the artificial manures consist principally of Peruvian guano, rape cake, and superphosphate of lime—the later is used for turnips, *drilled with the seed*, at the rate of from 200 lbs. to 400 lbs. per acre. The home farm of Mr. HUDSON contains only 1800 acres. His neighbor Mr. MATTHEWS, occupies between three and four thousand acres. We saw at the time of our visit, *twenty-one two horse teams* plowing in one field. There were nearly one thousand acres of turnips on the farm, and we believe all of them had from two to four hundred lbs. of superphosphate of lime drilled with the seed. One field of 125 acres of ruta bagas was manured with half a ton of rape cake per acre, sown broadcast and

plowed in—and with 400 lbs. of superphosphate, drilled with the seed. A finer crop we have seldom seen. It would doubtless average 25 tons of bulbs per acre. When we recollect that these lands were a few years ago sterile blowing sands, we shall be convinced that judicious "high farming," can work wonders, and is not unprofitable, *with good prices.*

Beauty and Poultry.—We have been favored with the programme of two exhibitions to be held at Gallatin, during the week of the Tennessee State Fair, commencing Oct. 15—one, is to consist of a grand display of Daguerrean portraits of such ladies as will furnish them, from which one is to be selected as "the Tennessee Beauty"—to be enclosed in gold, and sent to Barnum. The other exhibition, is to be a "most unique and extraordinary display of Domestic Fowls, &c., to include specimens of all the rare, fancy, valuable, and superb poultry in the union."

☞ The attention of Nurserymen and Fruit Cultivators, is invited to the "Nursery Stock" advertisement of Mr. Thorburn, who offers for sale the entire stock belonging to the late firm of Wilson, Thorburn & Teller. The sale is rendered necessary by the death of Mr. Wilson, and in order to close the business at an early day, great inducements will be offered to purchasers.

Ledyard Town Fair.—Our enterprising friends in Ledyard, Cayuga County, N. Y., held their Town Fair at Aurora, last week. The attendance was large, and the competition quite spirited. There was no charge for admittance, and beautiful diplomas were awarded as premiums.—"There were over 175 articles entered and 120 diplomas awarded." W. H. Bogart, Esq. delivered a short but interesting address to at least 300 persons.

Renovating old Meadows.—One word in answer to G. A. H. I have been troubled with such meadows in New York State, and spent time and money to improve them, but found it would not pay, and sold them and moved into Rock county, Wisconsin, where I can raise grass and all kinds of grain cheap and easy. Timothy seed, ashes, leached or unleached, and cross-dragging will improve your meadow ten fold in one year—plaster on dry land is best. *Magnolia, Wis.*

Cheese Factories.—I read a piece in the Cultivator a few days since, telling how people may make cheese from but few cows. With your leave I will give another method. It is known to many of your readers that there are cheese factories on some parts of the Western Reserve, where the cheese from a large extent of country is made. It seems to me that a similar plan might be adopted in neighborhoods where but few cows are kept, provided all hands would consent to be a little good-natured about it. Let each family run up their milk in the morning, and at a certain hour in the day let the one that is to do the pressing for the time go around and gather the curds and put them together. Each family might do its own pressing in turn or one might do it for the whole company just as they could agree. It seems to me that by some such arrangement people having but few cows might make just as large and nice cheese as dairymen keeping their twenty or thirty cows. J. D. B.

Soap and Sulphur Injurious to Young Trees.—For six weeks past, we have been greatly troubled, in this section, with locusts. They have been particularly destructive on young fruit trees; and having, this spring transplanted some into my orchard, of a favorite kind, I was very anxious they should not be injured by them as they were making sad work on some older trees in my orchard, and also in my neighbors'. For this purpose I made a mixture of soft soap and finely pulverized sulphur, and with a brush applied it to the trees, giving the whole tree, leaves and all, a good coating. Judge of my surprise, when, two hours after, on going o the orchard, I fonnd my *favorites* killed, not by locusts, but by my soft-soaping experiments.

It is quite common here for nurserymen to apply soft soap, in winter and early spring, to their trees to prevent rabbits from peeling them. But it will not do, to apply soap and sulphur, in summer, to the young and tender growth. Thos. P. Cooper. *Louisville, Ky., July 5th*, 1855.

Grazing in Texas.—Extract of a letter from a subscriber at Bastrop, Texas:—"I see from a recent No. of the Country Gentleman, that a lot of beef cattle, all the way from Texas, passed throngh your city on their way to New-York. If any beef cattle can be carried so far to market, certainly ours can, for they grow and fatten on our extended prairies, and, aside from branding and marking, a four year old steer costs but little more than a chicken, and nothing like so much as a *Shanghai.*"

No Caterpillars in Missouri.—It may be a *fact* worth noticing, to state that *heretofore*, this section of country has been greatly infested with *Caterpillars*, requiring much attention to free our *orchards* of them, but this season, there is not the *first vestige* of one to be found, nor a *nest* to be seen, even on the *wild cherry* and *plum*, heretofore literally *covered* with them. I attribute their disappearance to the unparalleled *hot* and *dry* season, last year. Is not that the *true* cause? C. *St. Louis, Mo.*

Rockland Co., N. Y. Sept. 6.—The potato harvest is already commenced, and serious fears are entertained of the rot, though there is an abundant yield. Sagacious farmers will hold on to their better kinds and refuse to sell at the low prices at present ruling. Should the rot prove to be so extensive as is at present anticipated, and as malignant, the result will probably approve their discretion. The corn harvest will begin here within a week, and a more abundant crop than will thus be gathered never made glad the heart of the husbandman. The fall plowing is progressing finely and there will probably be a very *broadcast.* H. A. C. S.

Progress in Maryland.

One might infer from the remarks of some of our agricultural orators and writers, that there was danger of a famine from the rapid deterioration of our farm lands, and we frequently see particular districts pointed out as in a state of almost entire unproductiveness —among these are Dutchess and Columbia counties in this state, and portions of Virginia and Maryland. That there are many farms whose soils are becoming exhausted, in all parts of the country, we do not doubt; but that, as a general thing, our agriculture is becoming less productive, we believe to be a slander upon the intelligence of the age. Take, for instance, the localities we have named, and we believe that it will be found that there has been for fifteen or twenty years a steady increase in the productiveness of the farms We give below an extract of a letter from Maryland, which affords proof of progress in that state, and we should be greatly obliged if some of our readers in Dutchess and Columbia, would inform us whether there has been any improvement in those counties during the last 15 or 20 years. The writer, who dates at Stockton, says:

"I may observe, that the average crop of wheat is about 20 bushels, corn 60 per acre. Ten to twelve years ago, but little or no wheat was grown in the neighborhood. Families who used wheat bread, obtained their flour from Baltimore. Corn was the principal article of food, and that was raised in small quantities. Farms were poor, fences down, houses neglected, and every thing bearing marks of want of thrift.

"A change has, however, taken place. A number of persons purchased these worn-out lands, built comfortable houses, and commenced a thorough renovation of the soil, and by the aid of bone dust, guano, and other manures, they have a beautiful productive country. Land has increased from $5 to $20 per acre up to the price now asked, of from $50 to $100, the latter with good improvements. There are now two large merchant mills, which are constantly employed in grinding wheat, and most of it obtained from the immediate neighborhood."

THOMAS GOULD,
BREEDER OF
Durham Cattle, Suffolk Swine,
Madagascar or Lop-Eared Rabbits, English Ferrets,
GUINEA PIGS,
Dorking and Brahma Fowls,
AURORA, CAYUGA COUNTY, N. Y.

AUCTION SALE
Of Thorough-Bred Devon Cattle.

THE subscriber proposes to sell at auction his entire herd of Thorough-bred, "Herd Book" Devonshire Cattle, on Wednesday the 17th October next, at his Farm, 2½ miles from Troy, N. Y., comprising 11 head of Breeding Cows, and about 9 head of Bulls, Heifer and Bull Calves. The originals of this fine herd were selected with great care, through importations from England and purchases in this country; and they have been bred with equal care, and all will admit on examination they are a splendid herd of this popular breed of cattle. Among the herd is the beautiful 3 years old imported Bull "May Boy," bred by John T. Davy, Esq., of South Moulton, Devonshire, England, and Editor of the English Devon Herd Book. This Bull, as will be seen by his pedigree, is descended from the highest strain of blood that England affords, and for perfection in symmetry, vigor and sprightly action, it will be difficult to find his superior. His get, as will be seen in the herd, will attest his superiority as a stock getter. There is also among the herd a beautiful 4 years old heifer and her Bull Calf. She was imported from the celebrated herd of Lord Leicester. A credit of 12 months will be given for approved paper, on interest. Catalogues of the animals will soon be issued, with pedigrees and further particulars, and may be procured at the offices which publish this advertisement, and of the subscriber. GEO. VAIL.
Troy, N. Y., August 30, 1855—w7tm1t

GRAPES! GRAPES!
A NEW and important work on
VINEYARDS.
THE VINE-DRESSER'S MANUAL;
AN ILLUSTRATED TREATISE ON VINEYARDS AND WINE-MAKING
By the Hon. Charles Reemelin of Cincinnati.
Containing full and elaborate instructions for the Cultivation of the Grape, including the preparation of the soil, the selection and planting of roots and cuttings, and the trimming and propagation of the Vine; every department being elucidated by Cuts. Price 50 cts.

A MUCK MANUAL FOR FARMERS—Being a treatise on the Physical and Chemical Properties of Soils, the Chemistry of Manures, including the subjects of Composts, Artificial Manures and Irrigation. By Samuel L. Dana. A new edition, with a new chapter on Bones and Superphosphates. Price $1. Just published by C. M. SAXTON & Co., Agricultural Book Publishers, No. 152 Fulton st., up stairs.
New-York, Sept. 20—w2tm1t.

THE BEST WORK ON THE HORSE.
Price One Dollar—Sent Free of Postage.
C. M. SAXTON & CO. have just published
THE STABLE BOOK:
A Treatise on the Management of Horses, in relation to Stabling, Grooming, Feeding, Watering and Working.
BY JOHN STEWART,
Veterinary Surgeon, and Professor of Veterinary Medicine in the Andersonian University, Glasgow.
With Notes and Additions adapting it to American Food and Climate, **By A. B. ALLEN,**
Editor of the American Agriculturist.
ILLUSTRATED WITH NUMEROUS ENGRAVINGS.
CONTENTS.
CHAPTER I.—Stabling, Construction of Stables, Ventilation of Stables, Appendages of Stables.
II.—Stable Operations, Stable Men, Grooming Operations of Decoration, Management of the Feet, Operations in the Stable.
III.—Stable Restraints, Accidents, Habits, Vices.
IV.—Warmth.
V.—Food—Articles of, Composition of, Preparation of, Assimilation of, Indigestion of—Principles of Feeding, Practice of Feeding, Pasturing, Soiling, Feeding at Straw Yard.
VI.—Water.
VII.—Service, General Preparation for Work, Physiology of Muscular Exertion, Preparation for Fast Work, Treatment after Work, Accidents of Work, Repose.
VIII.—Management of Diseased and Defective Horses, Medical Attendance.

"I have aimed in this Work TO MAKE PRACTICE THE MASTER OF THEORY, and have endeavored to arrange the whole subject into divisions which will render every part of it *easily understood* and *easily referred to by every one.*"—*Author's Preface*

"The Horse has been a favorite study with me from childhood, and for twenty years I have been more or less engaged in breeding and rearing them, on my own farm, and breaking and fitting them for market. I also had, during a residence of two years in Europe, the advantage of Studying the Stable Economy of large Military Establishments, and to inform myself by personal inspection on the subject of the Horse in general, and particularly his rearing and stable treatment, and in so doing examined alike the Thorough Bred, the Hunter, the Roadster, the Farm and Dray Horse. A. B. ALLEN."—*American Editor.*

THE HORSE'S FOOT,
AND HOW TO KEEP IT SOUND.
WITH ILLUSTRATIONS.
BY WILLIAM MILES.
Price, Paper, Twenty-Five Cents—Cloth, Fifty Cents.
Published and for sale by
C. M. SAXTON & CO,
Agricultural Book Publishers, 152 Fulton-St., New-York.
Sept. 20—w2tm1t

Devon Cows,
HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—mly. B. V. FRENCH, Braintree, Mass.

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No. 12 Broadway, New-York.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers, Reapers, Horse Powers and Threshers, Combined Thresher, and Winnowers, and other Agricultural Machines.

May 24—m12t*

DOMESTIC ANIMALS

AT PRIVATE SALE.

L. G. MORRIS' ILLUSTRATED CATALOGUE, with prices attached, of Short Horned and Devon Bulls and Bull Calves, a few Horses, South Down Rams, Berkshire, Suffolk and Essex Swine, will be forwarded by mail (if desired,) by addressing L. G. MORRIS, Fordham, Westchester Co., N. Y., or N. J. BECAR, 187 Broadway, New York. It also contains portrait, pedigree, and performances on the turf of the celebrated horse "Monarch," standing this season at the Herdsdale Farm. May 3, 1855—w&mtf

FOR SALE,

A FEW pair fancy Lop-Eared Rabbits at moderate prices, very fine specimens, delivered at Hudson.

Also a few pair Dorking Fowls, from the fine stock of R. H. Van Rensselaer, ready for delivery in September. Address S. V. C. VAN RENSSELAER,
Claverack,
July 26—w&mtf. Col. Co., N. Y.

ENGLISH CATTLE,

Imported on commission by Messrs. THOS BETTS BROS., Bishop's Stratford, Herts, England — 81 Maiden Lane, New-York City.

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,	Hampshire Sheep,
Short-Horned Cattle,	Cotswold, Leicester do
Devons, Herefords, Ayrshires,	Suffolk Pigs,
Alderney Cows from Islands of Alderney and Guernsey,	Essex, Berkshire do
	Merino Sheep from Spain,
Pure bred Southdown Sheep,	Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane
Jan. 4—1am—m1y. New York City.

Hay Presses, Hay Presses.

DEDERICK'S PORTABLE PARALLEL LEVER HORIZONTAL AND VERTICAL HAY PRESSES.

THESE Presses are so constructed that they can be taken apart at the manufactory, and (by the printed directions accompanying each press) put together again in a couple of hours by any two farmers, without the aid of a mechanic. They are so conveniently portable that they can be moved from one field or farm to another, as a sleigh is moved, by a pair of horses or oxen, and for convenience and power of operation they are altogether unequalled. They are now being shipped to all parts of the country, and are in every instance giving the most decided satisfaction. With two men and a boy to attend the horse, one of these machines will bale from 6 to 8 tons of hay per day, according to the No. or size of the press. Prices, from $130 to $175. For circular, with full description, apply personally or by mail to the subscribers.

DEERING & DICKSON,
Premium Agricultural Works,
May 10—w&meowtf Albany, N. Y.

FAIRBANKS' SCALES.

Warehouse No. 189 Broadway, N. Y.

THESE celebrated scales are still manufactured by the original inventors By an enlargement of their works, and an introduction of improved machinery, these scales are now furnished at greatly reduced prices. We have recently added to our stock a full assortment of *fine Gold and Druggists' Scales, Spring Balances, Patent Beams, Weights &c.* and now offer at wholesale and retail the most complete assortment of weighing apparatus to be found in the United States. We have a new and convenient article which we denominate the "FAMILY SCALE," it being particularly adapted to the wants of farmers and all housekeepers.

Hay and coal scales set in any part of the country by experienced workmen. Orders and letters of inquiry by mail will receive prompt attention. FAIRBANKS & Co.

July 12—w&m3ms. 189 Broadway, New York.

TA-FEU.

A NEW FERTILIZER, manufactured from night-soil, which, after being screened, dried and disinfected, is raised to a certain standard by the addition of salts of ammonia. It is warranted to be composed of nothing but night-soil and the aforesaid salts of ammonia, as the chemicals used for disinfection add neither bulk nor weight to the composition. It is the intention of the Lodi Manufacturing Co., who alone possess the right to this discovery, to make an article which can always be relied upon as pure and of a certain strength. It will be sold wholesale and retail, at $35 per ton of 2000 lbs., without charge for barrels or cartage, instead of which no tare will be allowed. A circular, containing testimonials of those who used an article something like, but much inferior in strength, made by us last season, will be forwarded by mail on application to the subscribers or their agents. Address

The Lodi Manufacturing Company
No. 60 Courtland street,
May 31—w&m4m New York.

NO. 1 PERUVIAN GUANO.

PERUVIAN GUANO, No. 1—Price $53 per ton of 2000 lbs. This guano we receive direct from the Peruvian government's Agent, with government weight and brand on each bag. Farmers purchasing of us cannot fail to receive the best No. 1 Peruvian. We keep none of the prepared, or No. 2 Guano.

Farmers or dealers wishing to purchase in large quantities, will receive a liberal discount.

BONE DUST, Land Plaster, Poudrette, Superphosphate of Lime, &c., at the North River Agricultural Warehouse.

GRIFFING & BRO.,
Aug 23—w8tm3t 60 Cortlandt-st., New-York.

DE BURG'S NO. 1

Ammoniated Super-Phosphate of Lime.

THE above valuable compound is warranted pure and genuine. The manufacturing department is under the personal direction of the subscriber, and will have studious attention as to his preparation at all times being uniform in its component parts. Many experiments during the past year, with the above brand, in equal quantity with Peruvian Guano and other concentrated Fertilizers, scrupulously testing its value as compared with the latter, by various State Farms, public Agricultural Committees, &c., have been made, showing a preference for it as a manure, both as to early inducement and prolificness of growth. Pamphlets will be sent on application to the subscriber, containing full directions for use, &c.

C. B. DE BURG,
Sole Proprietor and Manufacturer,
June 14—w&mtf. Williamsburg, L. I.

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag. Price $52 per ton of 2000 lbs.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag. Price $43 per ton of 2000 lbs.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure **2** under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
July 19—w9tm3t New-York.

HORSE POWERS,

OF the most improved Patents.
THRESHING MACHINES, with Separators,
CIDER MILLS, Hickok patent,
HAY, STRAW, AND STALK CUTTERS,
CORN SHELLERS. CLOVER HULLERS,
DOG POWERS. FANNING MILLS, &c. can be furnished at the North River Agricultural Warehouse.

GRIFFING & BRO.,
Aug. 23—w8tm3t 60 Cortlandt-st., New-York.

Maclura or Osage Orange Hedges.

H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants

IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges, given to purchasers.

G. G. SHEPPARD, New-York—P. B. MINGLE, Philadelphia—BYRAM, PITKIN & Co., Louisville, Ky., wholesale Agents.

Apply as above. April 5—w2m2m

Virginia Land for Sale.

THE subscriber having yet a few Farms for sale from his large and valuable tract of land situated in the county of Fairfax, Virginia, on and near the Turnpike leading from Washington and Georgetown to Leesburgh, 16 miles from the city of Washington, two miles from the Canal, and within 3 miles of the Alexandria, Loudon and Hampshire Rail Road. The soil is of the first quality, of a deep red color, seldom affected by drouths to which most lands are subject. Adapted to grain, plaster, clover, and all kinds of grass. The land will be sold in lots of 100 or 200 acres, or as the purchaser may desire. Every Farm will be well supplied with wood, which consists of oak, chestnut and second growth of pines Persons wishing to purchase would do well to call and examine before purchasing elsewhere. For further particulars, inquire of the subscriber on the premises.

S. S. MILLER,
Aug. 1—m5t Spring-Vale, Fairfax Co, Va.

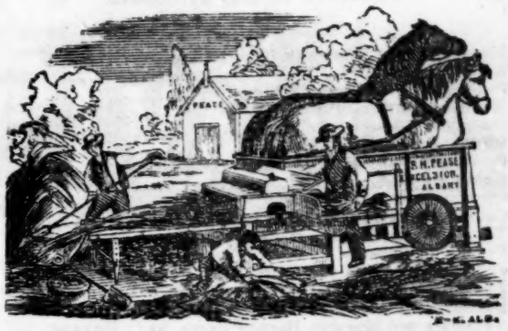
Stock Farm for Sale.

FROM injuries sustained, the subscriber is compelled to offer his Farm for sale, consisting of 285 acres of Prairie and Timber land—one hundred acres under cultivation; 50 acres Burr Oak Timber; balance red top, timothy and prairie grass lawn; situated in Fox River valley, Walworth County, Wisconsin. White River, a fine, never failing stream, flows through it, and several fine springs and a very fine well of water are upon the property. There is a good Frame House, with cellar, surrounded by a Grove of large timber; a Tenant House; a good Barn, with cellar and stabling for five horses and twelve cows; Smoke House, and all the requisites of one of the best and healthiest farms in the Union. Furniture, Stock, Farm and Utensils will be sold low, and offers a fine opening to any who wish to live west, in a healthy region, near Railroads, and where there is always a good market for grain and stock Fences mostly new. Terms made known by addressing H. IRVIN,
July 19—m3t* Burlington, Racine Co., Wis

FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPER & Co., 41 Water St., New-York; Caleb Gasper, Esq., Marcellus, Onondaga Co., Geo Young, Esq., Milo Center, Elias Bently, Esq, Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N. Y., Judge Ellsworth, Pen Yan. March 1—mtf—



Excelsior Agricultural Works.

Warehouse and Seed Store,

No. 369 and 371 Broadway, Albany, N. Y.

THE subscriber is prepared to furnish to order a full assortment of Farm Implements and Machines, adapted to all sections of the country both north and south, among which may be found

The Excelsior Changeable R. R Horse Power.
" " Threshing Machines with Separators.
" " Cider Mill, Krauser's Patent.

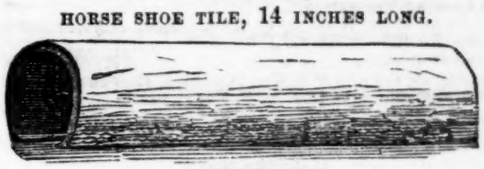
Mowing and Reaping Machines, Grist Mills, Corn Shellers and Clover Hullers; Circular and Cross-cut saw mills adapted to the Horse Power, for cutting fire wood, fence stuff &c. Also a general assortment of Fertilizers.

July 19—w&mtf RICH'D. H. PEASE.

Appleton & Alderson's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

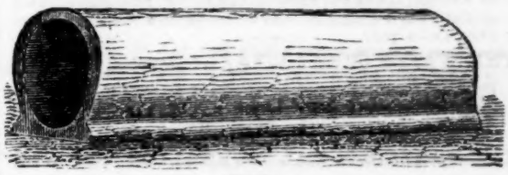
HORSE SHOE TILE, 14 INCHES LONG.



PIECES.

4½ inches calibre, ...$18 per 1000.
3½ inches calibre, ... 15 per 1000.
2½ inches calibre, ... 12 per 1000.

SOLE TILE. 14 INCHES LONG.



PIECES.

4 inches calibre, at .....$40 per 1000.
3 inches calibre, at ..... 18 per 1000.
2 inches calibre, at ..... 12 per 1000.

THE subscribers having enlarged their works, are now prepared to furnish Drain Tile of the various patterns and prices. Also Large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. We warrant our Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. MERCHANT'S, 71 Quay-st., Albany, near the Steamboat landing.

Full directions for laying Tile will be sent free to those addressing the subscribers.

We only need say that Appleton & Alderson obtained the first prizes for Tile at the Albany County, and N. Y. State Fairs. Practical drainers furnished if required.

Orders from all parts, will be thankfully received and promptly attended to.

Address APPLETON & ALDERSON,
195 Washington-st., Albany, N. Y.
May 31—weow&m5m

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THE PHRENOLOGICAL JOURNAL: Devoted to all those progressive measures for the elevation and improvement of Mankind. $1 a year.

For Three Dollars, in advance, a copy of each of these Journals will be sent one year. Address prepaid,

FOWLER & WELLS,
Sept. 6—w4tm2t No. 308 Broadway, N. Y.

FRUIT TREES,

Ornamental Trees, Shrubs, Flowering Plants, &c.

AN extensive and select collection of Fruit Trees, propagated exclusively from *bearing trees of the finest sorts*, is offered for sale at the Nursery of J. J. THOMAS, Macedon, Wayne county, N. Y.

☞ Careful selections will be made by the Proprietor, when desired, embracing a suitable proportion of the best varieties, so as to afford a regular succession of the Finest Fruit through Summer, Autumn and Winter.

Also, for sale, a large collection of the best hardy Ornamental Trees, Shrubs, Flowering Plants, &c., among which are the most brilliant varieties of Roses, the finest Spiræas, Pæonias, Phloxes, &c.

All orders, accompanied with remittances, will be faithfully and promptly attended to, and the Trees and Plants packed in the best manner for safe conveyance by railway.

NURSERY STOCK

Of FRUIT TREES and EVERGREENS,

To be sold by W. THORBURN, J. V. B. TELLER, and Estate of JAMES WILSON deceased:

WHO now offer for sale, in lots to suit purchasers, the entire Nursery Stock belonging to the firm. *Great reductions* from the regular prices will be made, as we desire to make as large sales as possible this autumn and next spring, to dealers and others, in order to *settle up entirely the business of the firm.* The stock is as follows:

34,000 Grafted Apple, 5 to 12 feet high, with fine heads.
14,000 Standard Pear, with fine heads, 4 to 10 feet high.
4,000 Plum, 4 to 10 feet high.
1,600 Cherry, 5 to 12 feet high, with fine heads.
2,000 Peach, 1 and 2 years from the bud.
3,000 European Lindens, 2 and 3 years, very fine trees, with fine heads.
3,000 European Mountain Ash, 1 to 3 years.
5,000 Norway Spruce.
1,000 European Larch, 100 Tulip Tree.
150 Laburnum and Balsam Fir.

Also, Pear, Apple, Plum and Cherry Stocks. The Fruit trees embrace all the very best varieties for extensive cultivation, and are of fine, healthy growth.

Personal inspection of the trees at the Nursery, preferred to correspondence. A liberal discount for cash, as it is desirable to sell for *cash*, instead of on credit. Catalogues to be had on application, or by mail, directed to

W. THORBURN, Seedsman, &c.,
Sept. 13—w7tm3t 492 Broadway, Albany.

LAWTON BLACKBERRY.

HAVING the present season additional opportunity to satisfy ourselves of the superiority of the LAWTON BLACKBERRY, we have accepted the Agency therefor from Mr. Wm. Lawton.

We can confidently assure the public that this extraordinary fruit fully sustains its reputation, being of mammoth size, with fine melting pulp and rich flavor, is perfectly hardy, and requires no extra care in its cultivation.

We are prepared to receive orders, which will be filled direct from the grounds of Mr. Lawton, on and after the 15th of October. The plants will be carefully and securely packed, without extra charge, and forwarded from New-York at the following reduced prices:

Half a Dozen, ...$3
One Dozen,..... 5
Fifty Plants,.....15
One Hundred Plants, ... .25

The money must in every case accompany the order.

C. M. SAXTON & Co., Agricultural Book Publishers,
Sept 29—w2tm1t No. 152 Fulton-st., New-York.

Pleasant and Profitable Employment.

A NUMBER of young Men may have constant employment in every County, by engaging in the sale of our ready selling Books. For particulars address

FOWLER and WELLS.
Aug. 20—w4tm2t. No. 308 Broadway, N. Y.

RURAL PUBLICATIONS.

THE attention of all persons interested in rural pursuits is invited to the following publications:

THE COUNTRY GENTLEMAN—a Weekly Journal for *the Farm, the Garden and the Fireside*—forming yearly two large and beautiful quarto volumes of 416 pages each. Price, $2 00 a year. This is, beyond question, the best agricultural journal published in this country. Specimens sent to all applicants.

THE CULTIVATOR—a Monthly Journal for the Farmer and the Horticulturist, beautifully illustrated, and forming an annual volume of nearly 400 pages, at 50 cents a year.

THE ILLUSTRATED ANNUAL REGISTER of RURAL AFFAIRS for 1855, embellished with more than *One Hundred Engravings*,—1 vol. 12 mo. 144 pp.—price, 25 cents in paper covers—bound, 50 cents—*sent prepaid by mail.*

RELATIONS OF CHEMISTRY TO AGRICULTURE, and the Agricultural Experiments of Mr. J. B. Lawes, a new work by Prof Liebig, just published, price 25 cents—sent prepaid by mail.

☞ Specimens and Prospectuses sent to those disposed to act as Agents. Address the publisher,

LUTHER TUCKER, *Albany, N. Y.*